WANTED in 252,000 Rooms

In the residence units estimated to be built in 1950 there will be a minimum of 252,000 wood paneled rooms, according to a recent survey of home builders' plans.

Roddiscraft—producer of the best in hardwood plywoods—can furnish all your plywood needs. All standard domestic and foreign hardwoods are carried in stock in Roddiscraft's coast-to-coast chain of warehouses.

Many unusual types of hardwoods are available on special order from Roddiscraft. Tell your Roddiscraft representative you want to see the Roddiscraft Sample Book, showing actual samples of fifty-one different types of face veneers.

For quality, for quantity, for availability — Roddiscraft is your best source of hardwood plywood.
NOW...

A NEW SUPER WINDOW UNIT
No trimming...it's already completely trimmed inside and outside

A NEW SUPER WINDOW UNIT
No trimming...it's already completely trimmed inside and outside

ALL YOU DO:

FENESTRA'S NEW COMPLETE UNIT:

One man can easily install this new, completely trimmed unit in a few minutes... using only hammer and nails.

Your carpenter prepares all openings alike for frame or brick veneer. Runs sheathing right over stud and cripple and saws it off flush. Plaster or dry wall butts against metal trim inside. Shingles, siding, stucco or brick butt against it outside. No finished work required inside or out.

The integral flashing saves time... makes the window weather-tight. There's a "pocket" in the inside trim, for Venetian blinds and shades... no need for blocking.

Neat and modern, simple to clean and screen from inside the room, always easy to open, Fenestra Windows will add real sales appeal to your homes.

And since the trim is galvanized and Bonderized, with a baked-on coat of prime-paint—you have a strong sales point in low maintenance. Head and jamb members are 18 gage, sill 16 gage for extra strength.

Check on these new units right away. For types and sizes call your nearest Fenestra salesman (listed in your Yellow Telephone Directory) today—he's an experienced representative of America's oldest and largest Steel Window Manufacturer. Or mail coupon.

Fenestra
WINDOWS • DOORS • PANELS
Another Outstanding Lumber Dealer

G. E. CARTER

owner, Builder's Lumber Co.,
Port Arthur, Texas


tells of beauty and durability of UPSON PANELS
in his own home

"I have sold Upson Panels for over 25 years to satisfied customers.

"Several years ago I applied them to the walls and ceilings of my home, 2114 Sixth Street in Port Arthur, Texas. Both my wife and I were delighted with the rich quality and character which these panels produce.

"Today, the panels look just as good as when they were first applied. I don't think they will ever need repairing, beyond an occasional coat of paint."

Carpenters: There are jobs waiting for men skilled in the application of Upson Panels. Lumber Dealers everywhere endorse this product—use it in their own homes.

mail this coupon today
IN THE JUNE ISSUE

A report on cement and its uses in the light construction industry. Portland cement is a vital structural part of every permanent building. In the June issue, American Builder will explore specific uses of cement, concrete, and concrete products. On-the-job stories and technical information will provide helpful building aids.

READ

How aggregate sizes and gradings affect the economic and structural aspects of concrete.

FEATURES

Power Tools Go on Parade
How a local promotion idea mushroomed into state-wide publicity

A Home a Day with Power Tools
A simplified system of materials handling plus use of power tools enables firm to average one complete house a day

Obstacles Surmounted with Power Tools
Power tools simplify developing hilly terrain for housing project

Ratio of Value to Cost—’41 to Present

From Excavation to Interior Trim with Power Tools
Specialized work crews making wide use of mechanical equipment contribute to peak efficiency of building firm

A Four-level Modern Provincial House
American Builder’s Blueprint House of the Month

Are Power Tools Profitable on Scattered Job Locations?
A firm specializing in quality-built homes says “Yes”

Own Your Own Equipment
Is the advice of a builder who figures a 50 per cent saving in overall project costs through use of power tools

 Builders Beat Terrain and Weather
To bring the economy of volume construction of medium-priced homes to market

Prize Winners—for less than $9,000
A project of 3-bedroom homes won first place in Michigan home builders contest

Lumber Company Demonstrates Materials Handling
How power equipment cuts costs in lumber yard

Mechanized Operations Speed Mill and Yard Output

More Power for You
By R. E. Soberson

List of Manufacturers of Powered Tools and Equipment

AMERICAN BUILDER PRIZE HOME COMPETITION

Featuring the seven entries that won honorable mention awards in American Builder’s contest for women architectural students.

Law Upkeep Costs with Wood Paneling

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6 REASONS WHY

your kitchens "sell" more

UNIVERSAL

DRAMATIC! NEW!

Here's a different kind of range to

"CONVENIENCE-LEVEL" cooking! Here's the one feature women want most in a range... everything at the "Convenience-Level." Now you can give your buyer a range with the oven or cooking units at any desired height. "Convenience-Level" cooking eliminates stooping and bending. It's unique and only Universal Select-o-Range has it. It's something every woman wants!

LARGER WORK AREAS! Space-saving Select-o-Range design lets you build the oven in a wall or install it in a cabinet. Makes more counter area available for much needed extra work space where space is at a premium. It's the ideal solution for small home kitchens, providing greater design flexibility and freedom. It's something every woman wants!

MORE STORAGE SPACE! Exclusive Select-o-Range design provides up to three times more storage drawer capacity than a conventional range in the same floor area. Extra drawers in matching design are right at the range where every woman wants them for all her utensils, cutlery and housewares. Saves steps... saves work. It's something every woman wants!
GREATER BEAUTY AND EYE APPEAL! Select-a-Range gives your kitchens that "modern as tomorrow" look at low cost. Built-in or peninsular arrangements now widely publicized in national magazines have extra appeal that sells the whole kitchen easier. Here's something new and different for your kitchens. It's something every woman wants!

NEW VERSATILITY for houses of every price range! There's a Select-a-Range for every house plan... low cost economy arrangements... as well as many other larger variations for higher-priced and "custom-built" houses. And every Select-a-Range has all the most advanced features of electric automatic cooking. It's something every woman wants!

COMPLETE FLEXIBILITY! 3 basic units give you over 25 Select-a-Range variations to provide the widest possible choice of range designs. And Select-a-Range flexibility gives you new freedom to design your kitchens as you want them...impossible to attain with the rigid dimensions of conventional ranges. Here's more sales power for you at low cost!

From every point of view—
THE UNIVERSAL SELECT-A-RANGE PUTS MORE SALES APPEAL IN KITCHENS... AND IT'S THE MOST WIDELY PUBLICIZED AND ADVERTISED RANGE IN AMERICA TODAY!
Installation and finishing expense leads most builders to demand the extra beauty, durability, economy and sales appeal of Mengel Hollow-Core Flush Doors.

1. Balanced seven-ply construction to provide controlled reaction in changing weather conditions.

2. Hardwood construction throughout — stronger, more durable, free from grain-tuning, more easily and economically finished.

3. Exclusive Insulok grid core material has inherent resiliency, cannot cause warping, nor transfer grid pattern to faces.

4. Greater strength. Adequate core stock surface area provides maximum gluing surface and resistance to warpage.

5. Precision key-locked dovetailed joinings of stiles and rails add strength and stability.

6. Ready to finish. Door faces are smoothly belt-sanded. Stiles are machine-planed at factory — prefix to standard book sizes.

7. Fully guaranteed. Each door must meet rigid quality control standards and constant inspection throughout manufacture.

8. Mengel Hardwood Flush Doors are economical — no mouldings to paint — no corners to collect dirt. Smooth hardwood surfaces are less absorbent and less costly to finish — easier to clean and longer-lived.

Write for complete specifications. Use the convenient coupon.

Also see
MENGEL STABILIZED SOLID-CORE DOORS
the finest products of their type on the market.

The Mengel Co., Plywood Division
2308 South Fourth Street, Louisville, Ky.

Gentlemen: Please send me, without obligation, full specifications on
- Mengel Hollow-Core Flush Doors; - Mengel Stabilized Solid-Core Doors.

Name:

Street:

City

State

AMERICAN BUILDER
Am I My Brother's Keeper?

THE Hearst papers' business columnist, M. S. Rukeyser, not long ago observed that "the modern corporation has become a cooperative social institution," not interested exclusively in making a dollar, if possible, for the stockholders, but also seeking to contribute something to community welfare. He quoted an economist for the Standard Oil Co. (N.J.) who upheld the same theme, namely that the interests of the owners of business cannot be advanced, in the long run, unless due account is taken of business' responsibility for the welfare of the whole community.

Along the same general line, several years ago, the General Motors Corporation employed a social scientist to report to it on how well it was carrying out its obligation to be a good citizen and a good neighbor. That is, in looking after the interest of its stockholders, was the company at the same time adding to or subtracting from the welfare of everybody else?

Several manufacturers have shown sufficient sense of stewardship for the kind of political and economic system which has made America great to be willing to devote some of the advertising space which they purchase, not just to advancing the sale of their products, but also to educational information in defense of the American political and economic system. A specific example of this endeavor was afforded in the February issue of American Builder, in the advertisement of the Ceco Steel Products Corporation.

One of the most noteworthy instances of this sense of stewardship for the general welfare by an individual corporation occurred recently in a public statement by a vice-president of the Westinghouse Electric Corporation, in which he defended the country's system of privately operated railroads; and set forth a program to remove some of the political handicaps which bedevil this industry and confront it with the threat of socialization. Coming from a railroad executive, such a statement would probably have been discounted as self-serving propaganda. Coming as it did from a great corporation with no immediate interest at stake, the expression could not fail to carry a great deal more conviction.

All of which raises the question—when those of us who oppose socialism in principle are carrying on educational efforts in support of our beliefs, are we not more effective when we complain against socializing the "other fellow," than when we limit our objections to the socialistic invasion of our own business? We establish a system of police protection to defend our neighbors against robbery, knowing that the system will also protect us if we are attacked. This is surely a more effective method of defense than one in which each citizen would be expected to defend himself against thieves, getting no help from his neighbors. If this mutual-aid system is applicable to protection against theft, why not to protection against socialization—which is simply robbery under a politer name?

Some of our states are designated as "commonwealths"—a term which can be easily misinterpreted to suggest the ownership of all wealth in common. What this word really means, though, is "common welfare." That is, the "commonwealth" concerns itself with those things, and only those things, in which everybody has an interest—such as discouraging crime or repelling a foreign invader. It is to my advantage that theft and murder be punished—not just when they are practiced against me, but when my neighbor is the victim, because unless these crimes are put down, nobody’s property or life, including my own, is safe. If I do not oppose socialization or communication when the "other fellow" is the victim, then I accept them in principle; and my failure to object gives them some legitimacy and acceptance. They thrive so that, one of these days, they can be applied to me.

There is no moral difference between making no complaint while one's neighbor is being socialized, and remaining silent while he is being robbed or murdered. In a community, we are all members one of another, as it was written long ago.

James G. Lyne
Here's what the men who use ATLAS MORTAR say:

"In my 30 years as a brick mason I have never seen a prepared masonry cement that works as well as Atlas Mortar."**

"Smooth as silk" Masons like the smooth, easy response to the trowel of battery, plastic Atlas Mortar.

"True, tight joints" The outstanding durability of Atlas Mortar is proved by rigid laboratory tests.

"Excellent appearance" Contractors appreciate the excellent appearance, color and strength of Atlas Mortar.

** Actual quotations from reports of masons and contractors who use Atlas Mortar Cement.

... and these are but typical. We are constantly receiving such reports, praising the outstanding workability, appearance and durability of Atlas Mortar. Try it yourself!

Backed by years of research, Atlas Mortar Cement complies with ASTM and Federal Specifications for masonry cement. For further information, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.


SKILLED HANDS PREFER

ATLAS MORTAR CEMENT

THE SATIN OF MASONRY CEMENTS

"THE THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel Subsidiaries—Sunday Evenings—NBC Network
The Crane Oxford Closet offers highest quality below the top price range. An excellent choice for most homes... and for the better apartments, resorts, motels, etc. Matching lavatory and bath. Consult your Crane Branch or Crane Wholesaler.
Here's how to start

This St. Louis sales riot is not an unusual event. Rather, it is the typical success pattern of builders all over the country. From Maryland, Colorado, New York and other sections come similar enthusiastic reports of builders who install General Electric Kitchens. Why not let General Electric help sell your houses faster, too?

General Electric offers you all this:

- Tested merchandising programs that have helped so many other builders enjoy phenomenal sales results.
- The brand of electrical appliances that people prefer to all others.
- Assistance in designing and improving kitchen layouts for your houses.
- One source of supply for matched equipment—a full line of cabinets and appliances.
- And most important: G-E equipment is world-famous for its dependability! Remember, you can put your confidence in G-E!
Rather than spend money to sell our houses, we installed complete General Electric Kitchens so that people would buy. Result: We sold 109 houses the very first day!

Mr. N. B. SCHUERMANN of Schuermann Building & Realty Co., St. Louis, Missouri

Today, more than ever, people want houses that include all-electric living.

They want low-priced homes that have kitchens in which dishes are washed and double-rinsed automatically—where there’s a Disposal for food waste.

They want plenty of hot water at all times... and they want an electric range that takes the trouble and guesswork out of cooking, and a family-size refrigerator.

What Schuermann did

The Schuermann Building and Realty Company offered the people of St. Louis, Mo., that kind of a house for the full price of $8,995... with less than $1,000 down!

You can see from the photograph at the left what happened. Hundreds of people were waiting to enter the General Electric equipped house at 10:00 a.m. More than 7,000 people came out to see the Schuermann home on opening day. 109 people bought houses the very first day!

A suggestion for you

We would like to work hand-in-hand with you to achieve similar results for you in your area. We can help you pre-sell your houses just as we have for so many other builders throughout the United States.

Get complete facts about the G-E "Kitchen Package" through your local General Electric distributor, or write to the Home Bureau, General Electric Company, Bridgeport 2, Connecticut.

As little as $4.80 more a month!

You can include General Electric Kitchens in your houses for as little as $4.80 a month extra when the G-E "Kitchen Package" is included in the long-term realty mortgage.

Furthermore, the slight increase in monthly payments may be offset by the economical operation, low maintenance and long life of General Electric appliances!

You can put your confidence in—

GENERAL ELECTRIC
Selectivity

FOR ANY PLAN
ANY STYLE
ANY SPACE

Ranch house—Cape Cod—Colonial—whatever the architectural style—whatever the size or cost of the house—Curtis has woodwork to fit your need. For the Curtis woodwork line is so wide—so varied—that it gives you practically unlimited scope in planning and building homes for every taste, need and pocketbook.

When you select Curtis entrances, mantels, china cases, stairways or kitchen cabinets, you can be sure of some very definite qualities. The materials will be carefully selected for every need. Craftsmanship will be fine because of Curtis precision manufacture—held to the highest standards for 84 years. Architectural styles will be correct. Costs will be moderate.

You'll find it worth while to have complete information on Curtis stock architectural woodwork—just mail the coupon.

For books, prized china and objets d'art, Curtis china cabinets provide ideal storage. Here is one of eighteen Curtis styles in a wide price range.

A new Curtis Development —PRESPIE

Prespine—the new wood material for use in panels in Curtis doors and other woodwork—now duplicates the natural grain of wood! Prespine panels, made of finely divided wood, will not warp, check or splinter—won't shrink or swell. Prespine is fireproof...can be quickly and economically finished by skilled or semi-skilled labor.

Where the owner wants an entrance above the ordinary, this Curtis design will solve the problem and reflect good taste. Design C-1709—one of many outstanding styles.

Curtis makes a complete line of woodwork for the modern home. Make your next house "all Curtis."

A Curtis mantel makes the utility of a fireplace beautiful. Curtis mantels "wear well"—they were designed by leading architects—have fine proportions and detail.
"Cool!"
The new "Frosty Finish" has a cool, smooth, hard feel. Doesn't get soft or tacky.

"Clean!" "Frosty Finish" Loomwire will not stick to your hands.

"Slick!" The "Frosty Finish" won't "dust" or flake off when you pull the cable overhead.

"Flexible!" Tests show that in temperatures as high as 125° F, the coiled wire does not stick together... pulls from the carton freely... is easy to fish.

At last, a non-metallic sheathed cable that meets every "ease-of-handling" requirement... can be stored in warm locations or handled in hot weather without becoming tacky... maintains all the moisture- and flame-resistant qualities of the original NE Canvas Back Loomwire.

LISTED BY UNDERWRITERS' LABORATORIES, INC.
MODERNIZATION creates business for entire BUILDING INDUSTRY

We're on the trail of one of the biggest markets that ever existed for the building industry!

It's the 23,000,000 homes in America that are more than 30 years old. That's more than half the homes there are in this country of ours. And they are sitting there with worn out plumbing, with antiquated kitchens, and with inefficient heating plants.

Those homeowners like the modern comforts and conveniences. They want good heating, too—only we have to remind them.

So we have.

We've started a campaign that is reaching newspapers and radio stations from coast to coast. Hard-bitten editors and newscasters know that people are interested in stories about improving their homes. So they are telling the public how to bring its houses up-to-date.

Naturally, we hope the public will replace old thermostats with our newer models. But anyway, we're telling the people that the best dollar they can spend is to modernize. We think they will.

So climb on the band wagon with us.

Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Leaside, Toronto 17, Ontario.
Majority Of American Homes For More Than 30 Years Old In Survey

Modernization Urged To Boost Value And Add To Efficiency

MINNEAPOLIS, Feb. 4 — Although Americans spend $7,000,000,000 in 1959 for home modernization, a vast majority of them still live in homes that are old, poorly maintained, and do not offer the real advantages of modern living.

The smallest utility is a study just completed by the Honeywell Regulator Co. of Minneapolis, which analyzed the nation's modernization needs. The study shows that more than half of America's 42,000,000 homes are not up to date.

Many Homes Have Hardened Arteries

Older homes can be said to be subject to hardening of the arteries.

That's the conclusion drawn from a study of homes conducted by Tom McDonald, president of the Honeywell Regulator Co. His sampling indicated that 6 in 10 homes are not modernized and need new heating, lighting, and air conditioning systems.

Older Homes Cost More to Keep Up

MINNEAPOLIS — America's oldest homes, the operation of 42,000,000 houses, will waste at least $4,000,000,000 this year, according to a study just completed by the Honeywell Regulator Co.

Survey Reveals Homes Waste Heat

The study shows that more than 50% of the nation's homes are not modernized and need new heating, lighting, and air conditioning systems.

Older homes are not as cost-effective as modernized homes. The cost of maintaining older homes increases significantly, and the energy efficiency is much lower.

23,000,000 Old Houses In U. S. Await Modernization

MINNEAPOLIS — Although modernization is approximately $7,000,000,000 in 1959, the average of America's older homes, which are not modernized, will waste at least $4,000,000,000 this year, according to an analysis just completed by the Honeywell Regulator Co.
Anyone looking out of a Ceco casement for the first time experiences something in better living. The eye crosses easily to the beauty of the outdoors. There is no limit to the sense of space. And to live with Ceco casements for even a short time is to appreciate truly sound value. For here, beauty and utility indeed are effectively combined. We believe all this can be attributed to a word—ENGINEERING. Actually, there are three phases of window engineering at Ceco... 1. Creative engineering—a ceaseless search for the new to blend with modern architectural effects. 2. Production engineering—organization of manufacturing processes to
for Better Living...

assure the lowest cost for quality. 3. Field engineering—here products are proved by practice. All this means meticulous attention to little things—to perfection of detail. That is why we say, in steel casements—CECO ENGINEERING MAKES THE BIG DIFFERENCE. When you build with Ceco, you know you've used the very best...you're sure of economy too.

CECO STEEL PRODUCTS CORPORATION
General Offices: 5601 West 26th Street, Chicago 50, Illinois
Offices, warehouses and fabricating plants in principal cities

makes the big difference
Russwin extra quality tubular locks and latches at NO EXTRA COST

You get a lot more in Russwin quality "Keynob" and interior door tubular locks and latches...at seven vital points...but you don't pay a penny extra. Exclusive Russwin all-steel rack and pinion latch stays smooth, trouble-free for life. Russwins are easy to install, reversible for any hand of door. Save you installation cost and save the owner maintenance expense. See the complete line of "Keynob" and interior door tubular locksets in smart designs and finishes at your nearby Russwin dealer's. Russell & Erwin Division, The American Hardware Corp., New Britain, Conn.

RUSSWIN dealers always have the edge...
Aggressive engineering keeps American Machines out-front in ability to save job-time and labor for you... and increase your profits!

In this ALL-AMERICAN "family portrait" you'll find outstanding new members—the sensational new Super 8 Floor Sander... new American Rental Floor Sander... new American DeLuxe Maintenance Machines... new American Wet or Dry Vacuum Cleaning System... and the new big-power American 8½" Saw!

Also, other American Machines unbeatable for a wide range of everyday jobs in flooring, construction and maintenance. Send coupon for more details.
Important Advantages Result When ZONOLITE VERMICULITE AGGREGATE Replaces Sand and Gravel in Concrete

It has recently been demonstrated by actual measurement of soil temperature at various depths that there is a very considerable loss of heat through floors of ordinary concrete on grade. This explains the common complaint that such floors are cold and tend to become unpleasantly damp through condensation of moisture from the air.

These objections do not apply, however, to on-the-ground concrete floors in which Zonolite vermiculite aggregate replaces the usual sand and gravel. These self-insulating floors prevent condensation—block loss of heat into the earth and, by minimizing heat lag, permit more accurate and immediate response to thermostatic control.

These natural qualities make Zonolite concrete an ideal base for radiant heat pipes. In an experimental installation, soil temperatures differed by 17.5°F beneath a non-insulated concrete slab and a slab of Zonolite concrete. The soil temperature of 82.5°F beneath the non-insulated slab indicated extreme heat-loss, while the soil temperature of 65°F beneath the Zonolite concrete clearly showed its ability to keep heat in.

Construction details and other data on the various applications of Zonolite concrete are available without cost to architects and builders. Mail the coupon today.

Sold by lumber and building supply dealers

FREE BOOKLET!

Fill out coupon below and mail today for information on Zonolite insulating concrete floors.

ZONOLITE COMPANY, Dept. AB-50, 135 S. LaSalle St., Chicago 3, Ill.

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Mail me free information on applications of Zonolite concrete for on-the-ground floors.

Name: _____________________________________
Address: ___________________________________
City__________________________State__________

FREE BOOKLET!
Hardware that stands up to "hard wear."

No greater security . . .
no greater convenience!

XP22 FRONT AND BACK DOOR SET
Consists of XP74281 Handle Set for front door . . . 170KA Tubular Deadlock for back door. Latter has chromium-plated inside trim to match modern kitchen fixtures. Front and back door keyed alike.

CR231 KNOB SET
Offered in following styles—latch set, no locking on either side, bathroom set with push-button on rose, emergency key, chrome inside, bedroom set, push-button on rose, provision for emergency key. Automatic throw-off.

XH DESIGN Same combinations as XP22 Set.

First choice for screen doors!

1011 PUSH-PULL SCREEN DOOR CATCH
Heavy-duty catch for screen and combination doors. Works easy . . . no knob to turn. Sure-holding, positive lock. Quick to install. Rustless metal, bright brass finish.

570 SCREEN DOOR CLOSER
Liquid-type. Quick, quiet, complete closing. Easy to install and adjust . . . no reversing . . . screw holes spotted by full-size marker.

506 AIRLINER SCREEN DOOR CLOSER
Pneumatic-type. Adjustable spring is completely concealed against dirt and rust. Modern appearance, attractive finish. Easy to install on doors of either hand, inside or outside . . . requires only 2 in. between doors.

THE YALE & TOWNE MFG. CO.
Stamford, Conn., U. S. A.
For power, for value, for every job
THEY'RE GREATER THAN EVER

Year after year the nation's truck users buy more Chevrolet trucks than any other make. For every kind of trucking job they prefer Chevrolet power and Chevrolet value.

Now, Chevrolet's two rugged valve-in-head engines give more power than ever. Advance design, solid construction and low prices give Chevrolet more value than ever.

Prove it to yourself. See the new Chevrolet P-L Trucks. Check them for popularity, performance, payload and price. In 1950 they are more than ever America's best truck buy!

CHEVROLET MOTOR DIVISION, General Motors Corporation, DETROIT 2, MICH.

LEADING WITH ALL THESE PLUS FEATURES:
- TWO GREAT VALVE-IN-HEAD ENGINES: the New 105-h.p. Load-Master and the Improved 92-h.p. Thrift-Master—to give you greater power per gallon, lower cost per load.
- THE NEW POWER-JET CARBURETOR: smoother, quicker acceleration response.
- DIAPHRAGM SPRING CLUTCH for easy action engagement.
- SYNCHROMESH TRANSMISSIONS for fast, smooth shifting.
- HYPOID REAR AXLES—5 times more durable than spiral bevel type.
- DOUBLE-ARTICULATED BRAKES—for complete driver control.
- WIDE-BASE WHEELS for increased tire mileage.
- ADVANCE-DESIGN STYLING with the "Cab that Breathes".
- BALL-TYPE STEERING for easier handling.
- UNIT-DESIGN BODIES—precision built.

AMERICAN BUILDER
Floors and walls stay good-looking... despite little heroes with big bats and sharp cleats. Genuine Clay Tile advantages are all hits! No scrubbing, waxing or polishing... defies stains, scratches, burns and scars... good for a lifetime... rich decorator colors... wide variety of patterns... low cost... fired-in colors... never needs replacement... best of all—you no longer have to talk "substitutes." Genuine Clay Tile is available now!

The Tile Council of America, Room 3401: 10 East 40th Street, New York 16, New York. Room 433:
727 West Seventh Street, Los Angeles, California.
MR. BUILDER

"PREMIUM BUILT" DOOR FRAME FEATURES LIKE THESE

SELL HOUSES!

- Mitres will not open
- Sharply ROLLED Profiles
- Will not warp or crack
- Hinges welded to Frame
- All one-piece construction
- More Permanent

The powerful plus factor that sells houses—that's what you get when you specify premium-built Aetna Frames. By simply pointing out to your prospects how Aetna contributes guaranteed soundness and premium value to the house, you find them easier to convince. A clinched sale is more apt to follow!

Aetna Frames come prime-coated from the factory in one-piece welded steel. Time and weather won't damage or affect them in any way. Quickest of all frames to erect, they save you innumerable man-hours—and can save you up to $5 per inside opening. Used on a large scale in housing developments and in individual homes. Aetna assures you tremendous mass production economy. Your building supply dealer stocks premium-built Aetna frames in standard sizes.

AETNA FRAMES

AETNA STEEL PRODUCTS CORPORATION
730 FIFTH AVENUE, NEW YORK 19, NEW YORK

MANUFACTURERS OF STANDARDIZED STEEL DOORS AND FRAMES FOR HOUSING UNITS.
FABRICATORS OF QUALITY HOLLOW METAL PRODUCTS FOR SCHOOLS, HOSPITALS, OFFICE BUILDINGS, ETC.
TRADEMARKED
as well as grademarked
...your double guarantee
of plywood quality

Something has been added in the labeling of plywood produced at Associated Plywood Mills, Inc. It is the APMI trademark, and you'll find it together with the DFPA grademark on both exterior-type and interior-type panels manufactured by this company.

This combination of trademark and grademark is your assurance that regardless of where you buy APMI plywood, you get the guaranteed products of a pioneer mill in the industry... And you can purchase APMI plywood at any one of 12 centrally located sales warehouses from coast to coast, from experienced plywood men who are eager to serve you.

Panels up to 60 inches in width and up to 144 inches in length.

Associated Plywood Mills, Inc.
General Office: Eugene, Oregon

APMI Sales Warehouses
Eugene and Willamina, Oregon
San Francisco, 925 Toland St., 34
Dallas, 4814 Bengal St., 9
St. Louis, 4268 Utah St., 16
Other Sales Warehouses
Bessonette & Eckstrom
Los Angeles 11, California

Plywood plants at Eugene and Willamina, Oregon
far stronger, far more

Double-

NEW CELOTEX

1 Waterproofed Inside!

Every one of the millions of tough cane fibres in its insulating board core is integrally treated with a waterproofing compound during manufacture.

2 Waterproofed Outside!

This board is then coated on both sides, and on all edges, with a thick, enduring "raincoat" of specially-treated asphalt which seals out moisture.
rigid as well as

Waterproofed!

INSULATING SHEATHING

When you build with new Celotex Insulating Sheathing, you assure your customers of stronger, more enduring homes with higher re-sale value...homes with effective sidewall insulation that means lower fuel bills in winter, greater comfort in all seasons. No wonder they're easier to sell!

Always outstanding for rigidity and bracing strength, Celotex Insulating Sheathing is today even stronger, more rigid than ever. It saves money on both materials and labor, because it insulates and builds—all at one low cost! Quick and easy to apply. Negligible waste. No building paper needed.

Although Celotex Insulating Sheathing is double-waterproofed, it has over twice the vapor permeability required by government agencies! Safe even under severe exposure during construction.

No other insulation gives all the advantages of Celotex Insulating Sheathing. For no other is made of long, remarkably strong Louisiana cane fibers. And no other is protected by the exclusive patented Ferox® Process against fungus, dry rot and termites. Yet this strong rigid insulation, applied, costs no more than ordinary sheathing!


TYPES AND SIZES:

25/32" Big Board:
4' wide x 8', 9', 10', 12' lengths; square edges

25/32" V-Type Center Matched:
2' wide x 8' long; center matched on long edges

1/2" Big Board:
4' wide x 8', 9', 10', 12' lengths; square edges.

THE FAST, THRIFTY WAY TO CREATE BEAUTIFUL INTERIORS....

Celotex Insulating Interior Finishes

With the new, improved Celotex Insulating Interior Finishes, you can easily create finished walls and ceilings of unusual charm and distinction. And for surprisingly little money! For these pre-decorated structural panels build, insulate and decorate, all at one low cost. They're amazingly quick and easy to put up.

The range of exclusive new whites and blended colors and textures, and the wide choice of shapes and sizes, enable you to achieve a variety of modern decorative effects. Available in Tile Board, Building Board and Finish Flank. Write now for details.

To make your homes easier to sell...

BUILD WITH GENUINE

CELOTEX BUILDING PRODUCTS

THE CELOTEX CORPORATION - CHICAGO 3, ILLINOIS

MAY 1950
Mack says... You'll open the FITS-ALL® Adjustable

Our Newest Alacrome
FITS-ALL No. 5 Adjustable Screen Door GRILLE

The most beautiful, ornamental Fits-All Grille of them all! Its gracefully designed scrolls insure a wide sales appeal. Also fully adjustable for nearly all standard-size screen doors. Made of Alacrome metal with a permanent, silvery-satin finish that will not rust or tarnish. Note the ingenious patented holder in the lower right corner of the grille as installed on the door to the left. It permits easy adjustment of the scrolls to fit the door while being installed. Each grille packed in individual, attractive, fully illustrated display carton. We're sure this new grille will soon lead the field, so order your stock right away!

IDEAL FOR COMBINATION SCREEN-STORM DOORS

Our new FITS-ALL No. 5 Screen Door Grille is fully adjustable for many styles of screen doors. For example, on the combination screen-storm door shown at the left, the scrolls may be installed in both the upper and lower sections to create a striking effect. Such graceful design have sales appeal as well as eye appeal.

COLORFUL, SALESMAKING DISPLAY CARTON

Each grille is individually packed in this eye-catching, colorful display carton with complete instructions for installing and suggestions for arranging scrolls.

We tell the millions of readers in these leading national magazines to buy our products from you. Order today and keep well supplied!
door to new sales with

SCREEN DOOR GRILLES

THEY'RE PRACTICAL, POPULAR and PROFITABLE!

With the addition of the beautiful new FITS-ALL No. 5 our line of Fits-All Grilles is more complete, more eye-appealing than ever before! Now, your customers have an even wider choice of these attractive grilles.

Each one is fully adjustable to standard-size screen doors! Easily installed. Every Fits-All Grille is artistically designed and made of Alacrome metal with a beautiful silvery-satin finish that won't rust or tarnish.

You'll want to have a complete selection of all 5 styles on display because when your customers see 'em, they'll want to buy 'em — so stock up NOW!

FITS-ALL NO. 1 — STANDARD GRILLE
ADJUSTABLE TO DOORS AND WINDOWS
This attractive grille will fit nearly any door. Its scissors-like, accordion action permits easy adjusting from 18" to 37" between stiles. Also used as a window guard to keep prowlers out... and to keep little children from falling out window. Packed 12 to carton—screws furnished.

FITS-ALL NO. 2 — Comes in pairs to fit the lower panels of doors with divided sections as illustrated. Fits doors from 30" to 36" in width. Also packed 12 to a carton.

FITS-ALL NO. FS
A new, graceful full-size grille. Two top bars are flexible to allow easy fitting to door. Packed 6 to a carton.

Nu-WAY SCREEN DOOR GRILLE
A sturdy, attractive grille that anyone can install. Furnished in black enamel finish in 3 sizes to fit doors from 30"-32", 36" and 42".

Nu-WAY PUSH GRILLE — An easy companion sale for screen door grilles. Fits above grille as shown at left. Made for 32" and 36" doors—packed 12 to carton.

Your order will be shipped same day received!

MACKLANBURG-DUNCAN CO.
OKLAHOMA CITY 1, OKLAHOMA
We've just invested in foresight—price $1,250,000.

That's what we'll be spending during the next few years on research to reduce the cost and improve the qualities of structures made with clay products.

This, in spite of the fact that the structural clay products you use today are being produced and sold faster than ever before.

Why, then, spend more than a million dollars for research?

... because we members of SCPI like being tops in your preference and want to stay at the top.

... because we believe modern research can give you still better brick and tile—easier to use, in more places, at less cost.

... because we know that even a slight improvement in our products will have tremendous potential benefits—for the millions of people who are served by structural clay products and for the building industry which makes such wide use of them.

With so much to be gained, by all concerned, SCPI feels that this million dollar investment in our future, and yours, is indeed sound.

**NEW SCPI DIRECTORY**: Write to your regional SCPI office for this handy reference source. Gives you names and addresses of SCPI member companies, types of brick and tile each makes, and other valuable information for users of Structural Clay Products.
Letters to the Editor

Architectural Competition
Sir: On behalf of the National officers and staff, I want to thank you and the American Builder for the really outstanding contribution you made to our program this year at the Chicago Convention.

I have just had my first opportunity of reading the four Convention issues you published and I want to tell you that I think they are the finest thing yet. We have indeed come a long way since the first issues of this sort were printed.

As nearly as I can learn, the architectural contest was a complete success and resulted in some of the finest publicity we have received.

Beyond all of this, the National Association has an immense obligation to the American Builder for your support in all phases of the Convention during the last five years. No one knows better than I what time, effort and money you have expended with the result that the whole affair is immeasurably larger and more constructive because of your support. I hope nothing will ever diminish this happy working relationship between us, particularly when I consider the grave dangers our industry faces—dangers far greater than that of temporary lapses of insuring and financing devices.

Frank W. Cortright
Executive Vice President
National Assn. of Home Builders
Washington, D. C.

Congratulations
Sir: Our Convention is now a matter of history, but I feel I would be remiss in my duty as Chairman if I were not to express my sincerest thanks and appreciation for the contribution of your time and effort in making this Convention the tremendous success that it was.

We of the National Association of Home Builders feel indebted to you for the service you have rendered us and the Industry in your efforts at the Convention.

E. M. Spiegel
Chairman, NAHB
Annual Convention
Passaic, N. J.

Sir:
I was very happy to hear of your being presented with the Silver Plaque from the Middle Atlantic Lumbermens Association.

I can think of no man in the industry who is more fully entitled to receive this plaque than you. My most sincere congratulations to you.

W. C. Bell
Managing Director
Western Retail Lumbermens Assn.

Our Mistake
Mr. William T. Dreiss, Architect
North Hollywood, Calif.

Dear Mr. Dreiss:

Thank you for reminding us of our error in the February issue. The last paragraph on page 117 ("Motel—A Big Opportunity for Builders") should have begun, "Owner O. A. Pearce . . ." instead of "Architect O. A. Pearce . . ." since the architect for the Holiday Inn motels was yourself. Please notice that on page 155 we have shown detail drawings of a serve-through idea designed by yourself, and that at the bottom of page 154 the courtesy line is for the Douglas Fir Plywood Association—a courtesy line which should have gone with the Technical Guide story on page 162! One mistake, like an A-bomb, seems to set off a chain reaction. We're sorry for the mixup.

The Editor

Attitude Toward Labor
Sir: I am in receipt of your letter of February 10, regarding the renewal of subscriptions for the American Builder.

The members of the Local Union voted at its last meeting, not to renew any subscriptions, because of the Anti-Labor editorials.

We brought this matter to your attention on your visit, last fall; and, unless your editors can see fit to discontinue their anti-labor practices, we shall discourage all labor from subscribing to your magazine.

L. W. Rushing
Recording Secretary
United Brotherhood of Carpenter's and Joiners
Tampa, Florida

EDITOR'S NOTE: I was greatly surprised to learn that you consider our editorial policy to be anti-labor. Upon receiving your letter I carefully reread all of the editorials I have written in the past year, as well as those written by (Continued on page 222)
don't buy blind...

COLUMBIA QUALITY POINTS

AUTOMATIC SAFETY STOP holds blind where you want it—no slipping. All-metal headbox completely encloses satin-smooth working parts.

SNAP-STOP is Columbia's exclusive device that keeps blind from rattling when window is open. Choice of enameled aluminum or steel slats, galvanized to prevent rust. Easy to clean.

CLIP-GRIP at top and bottom of Venetian blind makes tape removal quick and easy.

ROLLER-LIFT, special mechanical feature for extra large blinds, means easy operation. A child can raise and lower the biggest blind.

Some people may tell you that all blinds are alike—but they haven’t been around much. Knowing architects—institutional users and builders select blinds with their eyes wide open . . . specify Columbia for unusual requirements and extra quality.

In short, insist on C. C. C. when you specify blinds. You’ll get famous Columbia-Controlled-Construction. The man who pays the bills and everyone else using those Columbia Blinds will be thankful when you choose the best. For years and years and years Columbia Blinds will serve them well and beautifully. Remember—the bigger the job—the better the price.

Columbia Venetian Blinds and Window Shades are sold only in leading department and furniture stores and shade shops designated as Columbia Authorized Dealers.

We will gladly submit specifications for Venetian Blinds that can become a part of the General Contractor’s bid. This includes a recommendation for correct type of slats and tape; mechanism; method of manufacture and proper installation. Let us call on you and discuss your particular problems.

THE COLUMBIA MILLS, INC. • 428 SOUTH WARREN STREET, SYRACUSE 2, N.Y.
June House Beautiful to feature . . .

"BIG THREE" PACE-SETTER HOUSE

Climate Control, Privacy, American Style of Design in Ten-Page Presentation

For the first time since their introduction to the public, HOUSE BEAUTIFUL will merge its three big building ideas of 1950—Climate Control, Privacy and American Style of Design in its exciting June Pace-Setter House presentation! And the $25,000 selling price of the house featured proves that all three aspects of better living can be had at moderate cost, if the home-planner knows what to look for!

Built in the San Francisco Bay area of California, the primary climatological problem of this first pace-setter house of 1950 is wind control. But its design is basically adaptable to the problems of builders all over the country because wind control is a universal factor in determining climate-wise living comfort. If you study the illustration, reproduced on this page from the forthcoming issue, you'll see how the mass of the house itself is designed to act as a windscreen, deflecting steady winds up and over the sunny, enclosed patio. An estimated 2,500,000 home-conscious readers will find sensible reasoning behind this drawing and the extensive, detailed wind study included in the June issue as HOUSE BEAUTIFUL's climate story of the month.

The above Pace-Setter House is just one example in the parade of practical, beneficial features June HOUSE BEAUTIFUL is presenting to the building trades and its home-planner families.

You'll find them sensible selling points, when discussing future homes with your best prospective customers.

You can also see how privacy and the American Style of Design are graphically illustrated in the drawing on this page. Even though this house is built on a 65 foot lot, the garage along the street front, daily living focussed in or overlooking the enclosed patio, the strategic fence and the grouping of trees in the proper place all add up to a decided country feeling. The emphasis on comfort and convenience, the lack of ostentation and insistence on good design, the use of materials available anywhere are typically American.

As a Practical Aid
To Your Business . . .

HOUSE BEAUTIFUL will continue to bring you a monthly preview of the building information and ideas filling each forthcoming issue . . . well in advance of publication date.

Every month, you'll be able to plan your selling strategy ahead of time to use HOUSE BEAUTIFUL's enormous influence while it's working on the minds of your best prospects. Look for it regularly in American Builder! You'll find it a practical and profitable aid to your business!
right from House Beautiful

advertisers' BULLETIN BOARD

A directory of advertisers whose products are appearing in the June HOUSE BEAUTIFUL, which will reach your best customers on or about May 19th. FREE mounted counter cards for those products proceed by a number are available. See coupon on last page for easy method of ordering.

INSULATION

1. Balsam-Wool Sealed Insulation
   Wood Conversion Company

SURFACING MATERIALS

a. WALLS

2. Blue Ridge Patterned Glass Wall Paneling
   Blue Ridge Sales Division
   Libby-Owens-Ford Glass Company

3. Mississippi Structural Glass
   Mississippi Glass Company

MODERNIZE YOUR HOME WITH DECORATIVE GLASS is the title of a new booklet issued by the Mississippi Glass Co. 160 times more fire-safe than regular glass, the booklet features outstanding installations of Structural Carretaged and other arresting arrangements of glass patterns in the modern home. Free on request.

4. PC Glass Blocks
   Pittsburgh-Corning Corp.

5. U. S. Weldwood Plywood
   U. S. Plywood Corp.

Weldwood Plywood is the ideal way to satisfy the desire for at least one wood-paneled room, adding beauty and sales value to the house at relatively little cost. Show your builder customers how little it costs—you'll sell plenty of Weldwood and they'll sell their homes faster.

6. Romany Tiles
   United States Quarry Tile Co.

7. Thermopane Insulating Glass
   Libby-Owens-Ford Glass Company

8. Trend of the Times Wallpapers
   C. W. Stockwell Co.

b. FLOORING

9. Antico Rubber Flooring
   American Tile & Rubber Co.

Known for its great color-clash sales, Antico Rubber Flooring presents the most complete line of colors ever offered in rubber tile, Twenty-colors, high-style shades of green, blue, grey, and “bread-and-butter” stables. Full-color advertising in class consumer magazines throughout 1950 will help boost your Antico volume to new highs.

c. ROOFING

10. Carey "Fire-Chex" Shingles
    The Philip Carey Mfg. Co.

Carey Fire-Chex Shingles are a real roofing improvement—the first in many years. Up to 100 times more fire-safe than ordinary shingles, with “shadow-blends” in red, green, blue and gray; copyrighted as “works of art,” Fire-Chex offer builders and dealers more value to sell than roofing ever did before.

d. DOORS, WINDOWS & EQUIPMENT

11. Alocia Aluminum Windows
    Aluminum Company of America

12. Curtis Silencite Windows
    Cortix Company Service Bureau

13. Clearview Venetian Windows & Doors
    Clearview Venetian Window Co.

14. Columbia Window Shades
    The Columbia Mills, Inc.
*Warner Weather-Master Screen & Storm Sash Combinations
   Warner Mfg. Corp.

PAINTS

15. Ramac for Pools
    Insetro, Inc.

16. Nu-Hue Custom Color Paints
    Martin Sensor Company

SANITARY EQUIPMENT

17. American-Standard Dresslyn
    Lavorite-Dressing Table
    American Radiator & Standard Sanitary Corp.

18. W. A. Case Plumbing Fixtures
    W. A. Case & Son Mfg. Co.

19. Church Seats
    C. F. Church Mfg. Co.

20. Firestone "Velpa-Flo" Aerator
    Firestone Tire & Rubber Co.

The lady of the house is going to agree that this new invention fills a crying need in her kitchen. The amazing Velpa-Flo AERATOR takes splashes and sprays out of running water. A simple attachment for the standard kitchen faucet—it transforms splashing water instantly into a foamy, clingy stream. Also speeds up washing and rinsing of dishes.

*No-Drip Tape
    J. W. Mortell Co.

21. Permutit Automatic Water Softener
    The Permutit Company

A revolutionary automatic water softener at a low price has just been produced by The Permutit Company, manufacturer of water conditioning. Here is a quality water softener for even moderate-income families. It sells for 43% less than comparable pre-war automatics. A few choice dealer franchises available.

b. WATER HEATERS

22. Permaglas Automatic Gas Water Heaters
    A. O. Smith Corporation

Another dramatic ad in the June issue. It’s your ad, paid for by A. O. Smith. Put it to work using tie-in materials now available. The 28" x 27" ad blow-up recently mailed to all A. O. Smith Registered Dealers will remind your prospects of Permaglas, the water heater that can’t rust because glass can’t rust.

c. FOOD WASTE DISPOSER

23. In-Sink-Erator Food Waste Disposer
    In-Sink-Erator Mfg. Co.

KITCHEN CABINETS

*Lyon Kitchens
    Lyon Metal, Products, Inc.

HEATING

24. Thermostats & Chronotherm
    Minneapolis-Honeywell Regulator Co.

25. Mor-Sun Furnace
    Monroe Steel Products, Inc.

26. Mueller Furnace
    L. J. Mueller Furnace Co.

Mueller Climatrol, (climate center for comfort living) manufactured by the L. J. Mueller Furnace Company of Milwaukee, for 62 years builders of top quality heating equipment. The complete Mueller Climatrol line includes furnaces, winter air conditioners, conversion burners, boilers, unit heaters, and cooling equipment. Write for "All Product" catalog.

27. L. P. Winkler Oil Furnace
    U. S. Machine Corporation
*Webster Base Ray Heating
    Warren Webster & Company

28. Williams Oil-O-Matic
    Williams Oil-O-Matic Division
    Eureka Williams Company

Any questions about oil heat? Williams Oil-O-Matic’s booklet, "There's a BIG Difference in Oil Burners," offers a clarifying "buyer's guide." Candid comparison chart shows all types and brands. Oil-O-Matic burns ANY domestic fuel oil, including the new butyl catalytic oils.

COOLING, VENTILATING, AIR-CONDITIONING

29. Chelsea Home Comfort-Cooling (Attic Type) Fans
    Chelsea Fan & Blower Co.

Complete package units for attic floor or attic wall mounting. Spring-supported, quiet, vibration-free. Easy to install. Sizes from 24" to 60", with guaranteed ratings from 5000 to 28,000 CFM. Request literature on operation and installation. Models for homeowners, rented houses and apartments.

30. Igloduala Portable Window Fan
    Igl Electric Ventilating Company

When you own an Igloduala double purpose fan and one of those terrific summer heat waves strike, you can sit back and relax in the shade of your new portable. Quiet, vibration-free. Easy to install. Sizes from 24" to 60", with guaranteed ratings from 5000 to 28,000 CFM. Request literature on operation and installation. Models for homeowners, rented houses and apartments.

31. Fedders Room Air Conditioner
    Fedders-Quigley Corporation

32. Frigidaire Electric Dehumidifier
    Frigidaire Division of General Motors Corp.

Here’s a sure simple way to check moisture damage — electrically and automatically! The amazing Frigidaire Electric Dehumidifier passes damp air over chilled coils—forcing moisture to condense into container or drain. It’s been proved in thousands of home and business installations—in used by many stores to protect valuable inventories.

33. Mitchell Room Air Conditioner
    Mitchell Manufacturing Co.

The makers of the world’s finest air conditioners, Mitchell Manufacturing Company, feature their 3½ ton and 7½ ton models. Available in decorator’s beige, the Mitchell cools, dehumidifies, filters, circulated, ventilates, dehumidifies, and the like. Easier to install than your own set, outperforming every other room air conditioner for home or office. Folder. "What are the FACTS"?
34. Oasis Air Dryer
Enco Mfg. Co.

New, CHICAGO AIR DRIER, an economical, electrical appliance for automatically removing excess moisture from air. Reduces humidity in basements, device for installations in basement workshops, recreation rooms, department store warehoues, bank vaults, etc. Eliminates age-old problems of mold, mildew and rust on valuable machinery, luggage and clothing.

35. Sno-Breeze Air Cooler Fans
PALMER MFG. CORP.

*SALVY Air-Dryette, Jr.
SALVY SALES DIVISION—ALLIED CHEMICAL AND DYE CORPORATION
The new Air-Dryette, Jr. absorbs dampness in basements, closets, etc. Absorbs up to 3/4 quart per day. The Air-Dryette is inexpensive, clean, safe, easy to use. For recent dealer and informative booklet, write Slay Sales Division.

36. Torrington Moving Air Book
Box 880 Torrington, Conn.

VENT-A-HOOD CORP.

Covering the ENTIRE range area, Vent-A-Hood instantly removes all cooking storms, grease vapors, odors and heat . . . without interfering with air-conditioning or heating systems. Winds, walls, worktop and furniture retain their fresh, clean, new appearance. 250,000 owners tell us that the extended life of decorating plus savings on cleaning bills for rugs, draperies and furnishings more than pay for a Vent-A-Hood. Information and literature on request.

38. Rusco's Magic Panel
Window Ventilator
THE F. C. RUSSELL COMPANY

MAJOR APPLIANCES

39. Deepfreeze Refrigerator with Freezer Compartments
DEEPFREEZE DIVISION—
MOTOR PRODUCTS CORP.

40. "Suds N Rinse" Dishwasher
"QUICK-SUDS" WASHER
O'CONNOR PRODUCTS CO.

41. Philco Home Freezer
PHILCO CORPORATION

42. Presteline Refrigerator
LEESON STEEL PRODUCTS, INC.

Presteline Refrigerators—Special traffic promotion on new 1950 lines featuring "Five Zone Refrigeration." Beautiful styling accents full-length door and special design compartments for each type of food. 8 and 9 cubic foot models. Prices start at $199.95 for a big "B".

MASONRY

42. Marble for the Home
MARBLE INSTITUTE OF AMERICA

A new booklet, "Marble for the Home" is made available for free consumer distribution by the Marble Institute of America, Inc. This copiously illustrated booklet with pages in full color is part of a new campaign by the Marble industry intended to keep pace with a revived interest in marble for the home.

43. Portland Concrete
PORTLAND CEMENT ASSOCIATION

HARDWARE

44. Scan Invisible Hinges
SCAN MANUFACTURING COMPANY

Scan Invisible Hinges are mortised in the door and the jamb where they are completely hidden from view. This unique feature allows the flush, smooth, streamlined interior effects that are so necessary to really modern architecture. Tie in your sales promotions with MARBLE HOUSE BEAUTIFUL, advertising and increase your profit picture.

LIGHTING FIXTURES

45. Universal Pacemaker Glass Lighting Fixture
LIGHTOLIER, INC.

"Universal Pacemaker" was specifically designed by Lightolier to help builders sell homes faster. A boddy scaled textured glass bowl suspended by highly-styled chandelier-like clasps, it achieves a "built-in" look at a nominal cost. Available in 15 different models, none with "co-louvered" lens spotlights.

COMMUNICATION

40. Nutone Chimes
NUTONE CORP.

New homes sell faster with features that appeal to home-buyers like the inviting tones of Nutone Door Chimes. Write for facts showing how Nutone products make homes more attractive and salable without straining your budget.

MISCELLANEOUS STRUCTURAL MATERIAL

47. Never-Stain Aluminum Nails
NICHOLS WIRE & ALUMINUM CO.

FENCES

48. Dubois Woven Wood Fences
DUBOIS FENCE & GARDEN CO., INC.

49. Rusticraft Woven Picket Fences
RUSTICRAFT FENCE CO.

PLANT FOODS—WEED KILLERS

50. Vigoro, End-o-Pest, End-o-Weed
End-o-Weed & Co.

GARDEN EQUIPMENT AND ACCESSORIES

*Allenco Parkside Sprinkler
W. D. ALLEN MANUFACTURING CO.

*Metal Spade Rake
ALL METAL COMPANY

51. Avon Lawn Sprinkler
DIVISION OF GENERAL SCREW MACHINE PRODUCTS, INC.

52. Crystal-Mist Lawn Sprinkler
CHICAGO ROLLER SHAFT CO.

*Ehleman Power Mowers
EMILEM AN.

53. Jacobson Power Leaf Mill
JACOBSEN MFG. CO.

*Gravely Tractor
GRAVELY MOTOR PRODUCTS & CULTIVATOR CO.

*Tri-Gator
THOMAS MANUFACTURING COMPANY

*Majestic Outdoor Fireplace Unit
THE MAJESTIC COMPANY

A fast-moving, profitable item for Spring and Summer sales. An all-metal, durable unit designed to be placed of own choice of material and design. Cast iron bar grates adjustable for charcoal or wood. Offered in four sizes and types, economically priced. Free display card, mats and other sales promotional material.

*Meke Seedling Spoon
MEKO CORPORATION

54. Moto-Mower Power Mower
MOTO-MOWER COMPANY

*Ralph All-Aluminum Wheel Barrow
RALPH PRODUCTS CO.

55. Sunbeam Hood Trimmer
SUNBEAM CORPORATION

America's favorite. Powerful High Speed Lightweight, easy-to-handle, simple to operate. So light a woman can easily use it. Exclusive clutch prevents damage to blades or gears from wire, woven fence, etc. A precision instrument in every detail—by the makers of famous Sunbeam electrical appliances.

56. Wiss Flower Cutter
J. WISS & SONS CO.

New, unique Flower Cutter-Holder by Wiss. $2.99. With one hand you can cut and hold out-of-reach flowers. Holder is made of aluminum, weighs 5 oz., is 18" in length.

SWIMMING POOLS

57. Kenney All Steel Swimming Pools
L. O. KENNY & BROS., INC.

Send for your FREE House Beautiful Window and Counter Display Card this easy way . . .

Circle the numbers below which appear beside the advertisements you wish mounted, fill in your name and mailing address and mail coupon to: Merchandising Division, HOUSE BEAUTIFUL Magazine, 572 Madison Avenue, New York 22, N. Y.

1 2 3 4 5 6 7 8 9 10 11 12 13 14
15 16 17 18 19 20 21 22 23 24 25 26 27 28
29 30 31 32 33 34 35 36 37 38 39 40 41 42
43 44 45 46 47 48 49 50 51 52 53 54 55 56
57 92

NAME

ADDRESS

CITY ZONE STATE

MAY 1950
You Need All Three...You Get All Three


HOMELITE

Carryable Generator

2. Dependability. For more than 25 years, Homelite engineers have specialized in building carryable gasoline engine-driven units. Their experience in building close to three hundred thousand of these units has been responsible for the simplicity of design and precision construction with finest materials that insure long-haul dependability and lowest maintenance costs.

3. Service. A Homelite seldom needs service, but when it does, there's a trained Homelite service man near you...a man who will drive his truck right out to your job and put your Homelite in perfect operating condition. This prompt, competent service is a great money saving factor for those who want to get continuous production out of their power tools.

1. Performance. True, a Homelite Gasoline Engine Driven Generator is light enough for one man to pick up and carry but its performance is big enough to operate all your electric hand tools. In fact, it gives you power plus...power plus a large overload capacity...power plus a constant voltage under all loads...power that isn't sapped by long dangerous cables. Easy to get on the job; quick to start at all times, never bothered by extreme temperatures, a Homelite will keep your power tools going at peak efficiency always. It will save time and money for you on all jobs. Ask for free demonstration and see for yourself.

HOMELITE CORPORATION

305 Riverdale Avenue, Port Chester, New York

Manufacturers of Homelite Carryable Pumps - Generators - Blowers - Chain Saws - Paving Breakers
Warm Up Your Insulation Business with this Easy-to-Store, Easy-to-Sell Barrett Product!

8-FOOT LENGTHS. Go on faster. Fewer seams—an unbroken vapor barrier from floor to ceiling—mean better insulation, less condensation. Also available 15" x 24" and 15" x 48", full and semi-thick.

FIRE-SAFE. Barrett Rock Wool Insulation is a fire-proof material—functioning as a barrier to the spread of fire. A blowtorch won’t burn it.

SOFTENS SOUND. Cuts down outside noises and, strategically applied to partitions between rooms (as in the case of a bathroom), it virtually eliminates sound transference.

WON'T LUMP UP. Firm, springy Barrett Rock Wool doesn’t “drift” or get lumpy. High resilience assures uniform density of insulation over all areas.

NO STORAGE CASUALTIES. Batts can be stored for long periods and will spring back to specified thickness when removed. No “flatties” at the bottom of the pile!

QUICK DELIVERY. Barrett’s conveniently located distribution points assure immediate attention to your orders, no lost sales through empty shelves.

THE BARRETT DIVISION

MAY 1950
Homes sell faster when you install

Stanley
Floating
Door
Equipment

You build more value into a house … give people what they want when you provide Stanley Floating* Garage Door Equipment. Its exclusive Floating Action (doors literally 'float up out of the way') has caught on with some buyers.

Old doors or new can be equipped with this modern garage door hardware. It's easy to install, and the Stanley line includes a type to fit every need and pocketbook, from estate to small home owner.

Your prospects will see Stanley FLOATING Door Equipment advertised in the post. They're already familiar with “Stanley” — the recognized, preferred name in hardware. Take advantage of the demand — equip the homes you build with Stanley Floating Door Equipment†. It's a real selling PLUS! Get all the facts and details.


The Stanley Works, New Britain, Conn.

†FOR ANY RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DOOR THAT LIFTS · SLIDES · SWINGS · ROLLS · FOLDS.

STANLEY


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You keep door frame erection time at a minimum by using Richmond welded steel frames with integral moulded trim. These strong, well-built units will help to lower your building costs because the frames are simple and easy to install.

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Breakfast with a View is a daily pleasure in this dining nook, whose corner Windowalls are formed by stock Andersen Casement Window Units.

These wood windows invite sunshine and fresh breezes to every meal—and all year long they also function as walls. They are more than windows, more than walls... they are Windowalls. The wood of these windows lends beauty and color to both the room and the view, and in sub-zero weather, wood's insulating qualities are an added advantage.

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STEELCRAFT STEEL RESIDENCE CASEMENTS
MADE OF HOT-ROLLED SECTIONS...BONDERIZED

Steelcraft now offers contractors and dealers a complete line of Steel Residence Casements, Utility and Basement windows...plus Steel Casings, Surrounds and Combination outside-inside trim.

Steelcraft Steel Residence Casements are made of heavy hot-rolled solid sections of uniform thickness, with butt welded mitred corners. Extra long reinforced hinges with bronze pins and washers provide ample clearance for safe and easy cleaning of the exterior of the glass from the inside. Sections are designed for maximum daylight. Heavy bronze finish roto or lever type hardware may be used for ease in operation of the ventilator. Screens and storm sash are easily attached to the inside of the frame. All casements are BONDERIZED and given a shop prime coat of paint baked on in accordance with Steelcraft Bonderizing specifications.

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All building products shall receive the standard Steelcraft bonderized finish which includes a thorough cleaning by high pressure sprays of a hot alkaline solution and hot water, a uniform rich in bonderite chemicals, and painted with one coat of gray primer by the patented flow coat process to insure complete coverage, oven dried, and baked a minimum of twenty minutes at 300° F. To insure uniformity, this entire process of cleaning, bonderizing, prime paint, and oven drying shall be continuous and automatic without manual handling.

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STEEL RESIDENCE CASEMENTS
BASEMENT AND UTILITY WINDOWS

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Steelcraft steel casings are ideal for all types of wall construction. They are easily installed at a minimum cost—the casing, consisting of head, jamb, and sill members, eliminates plaster returns, sills, and trim. Steelcraft steel casings are BONDERIZED and painted with a baked on prime coat of paint in accordance with Steelcraft Bonderizing specifications. Excellent finish for finish coats of paint. They are fire-resistant and cannot warp, shrink, or crack. Shipped knocked down for assembly in the field. Easily stocked and available in all types and sizes for Residence Steel Casements.

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Steelcraft tilt-in type steel basement windows are made of hot-rolled casement window sections, which provide double weathering contact throughout. Armless ventilators provide absolute trouble free operation and are easily removed for cleaning. Positive handle locks each sash tight against frame. Screens are easily attached to the outside of the window with special clips. They are BONDERIZED and given a shop prime coat of paint baked on in accordance with Steelcraft Bonderizing specifications.

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Steelcraft steel utility windows are designed for use in stock barns, basements, shops and garages. They are made of hot-rolled casement window sections providing continuous double weathering contact. Tilt-in type armless ventilators can be easily removed. Draft guards for sides of windows can be furnished. Screens are easily attached to the outside. They are BONDERIZED and given a shop prime coat of paint baked on in accordance with Steelcraft Bonderizing specifications.

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1. Radial Arm Saw
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The Building Estimator's Reference Book

By Frank R. Walker

The new Tenth Edition contains latest estimating and cost data on everything that goes into house construction, from foundation to finish. It can be used in any locality, regardless of local prices or wage scales. It covers all types of small and large building construction.

For 30 years Walker’s handbook has furnished contractors and estimators the most complete compilation of estimating and cost data available. The new edition has been revised and improved in the light of postwar conditions. Thousands of items that enter into construction estimates are logically arranged and tabulated for ready reference. A complete cross-index enables the user to quickly locate any subject.

HELPS PREPARE BETTER ESTIMATES

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Look to USG's line of famous SHEETROCK®, gypsum wallboards, there's one for every purpose and for every purse. For example, the woodgrained boards—Walnut, Knotty Pine, Bleached Mahogany—combine the fire protection of gypsum with the luxury of wood paneling at a fraction of the cost. Regular SHEETROCK® is available in various thicknesses and lengths for new construction, modernizing, temporary and display work. Typical of this wide U.S.G. product line are the materials below.

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Used with the PERF-A-TAPE Joint System, it produces smooth, seamless wall and ceiling surfaces with practically invisible joints. Here are good solid-walled rooms that take shape in days, not weeks—that can be decorated and occupied almost immediately. Rooms inexpensive to build, without compromising quality. In addition, SHEETROCK® is fireproof, versatile, lasts a "lifet ime."

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The ultimate in dry-wall construction featuring two layers of SHEETROCK® job laminated, for more fire protection, added sound resistance, increased strength, smoother beauty—important extras that help you sell more houses. So build with this up-to-date double wall and you create interiors worthy of America's finest homes. 

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“THE LOOK THAT SELLS”

“I anxiously wait until I see that first look on my prospect’s face as she enters the door of one of my houses. I know if she is pleased with what she sees first, the first step to a sale is made.

“That’s why I always put oak floors in my houses. Women like them because they’re so easy to clean and look good with all furnishings. Men like them for their low upkeep, lasting qualities, and the extra value they add for resale. It’s no wonder 85% prefer oak floors.

“For my part, I don’t gamble, I use oak.”

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Nothing helps sell a house faster than Good Oak Floors.
Increased Mortgage Competition Developing

THE nation completed the most spectacular winter home building season in its history in February when 80,000 new non-farm dwellings were started. Starts for January and February were 59 per cent above last year. Apartment building has been showing a big increase, but, nevertheless, construction of new one-family houses is at a record high. About 790,000 single-family houses were begun last year, up 5 per cent from 1948 when the previous record was established.

Apprehension is felt in some quarters about the rising mortgage debt. In 1949 the volume of home mortgage debt rose to a new high of approximately $38 billion. This is about double the amount outstanding in 1939.

Nevertheless, there is now increased mortgage competition and somewhat lower interest rates on mortgage loans. This is the result of the large volume of savings coming into the market, the decline in yields on high grade bonds and the resultant desire of some institutions to switch funds from bonds to mortgages, and the fact that pension and trust funds are growing rapidly and are being invested in home mortgage loans.

How long this trend toward lower mortgage rates will continue depends, in the opinion of the United States savings and Loan League, on a continuation of a heavy volume of residential construction, the rate at which people save money, and the Federal Government's monetary policies.

More and more conventional loans are being made at rates of 4 per cent and 4½ per cent. Nearly all types of lending institutions are making more GI loans and holding them rather than selling them to the Federal National Mortgage Association. The GI 4 per cent rate is looking more and more attractive to institutional investors. Leading institutions have developed very satisfactory working relationships with the offices of the Veterans Administration, and legal questions which prevented some large

During the fifties it appears that financing terms will continue to be relatively favorable for borrowers and a growing volume of homes will be financed by institutional lenders. On the basis of postwar trends, savings associations may be expected to gain importance in the field of home financing.

Out of 2,500,000 home mortgages of $20,000 or less made in 1949, about 31 per cent were made by savings and loan associations, 6 per cent by insurance companies, 20 per cent by commercial banks, 5 per cent by mutual savings banks, 23 per cent by individuals, and 14 per cent by all other mortgages.

Title III housing applications providing for low-rent public housing have poured in at FHA despite record-breaking construction of new privately financed houses.

Applications received and tabulated to date provide for 398,165 dwelling units. Cooperation agreements with local governments providing for tax exemptions have been approved by FHA for 59,410 of the dwelling units. A total of $35.7 million in preliminary loan applications have been authorized and $19.8 million executed.
Cost Cutter

Deeper cut with smaller blade just one of the ways Walker-Turner design helps you save building time and costs with this

New "900" Radial Saw

MORE CAPACITY FROM LESS POWER!
Only the Walker-Turner "900" Radial Saw cuts 3 1/4" deep with a 9" blade—more than most machines with a 14" blade! You get greater capacity with smaller blades (which require less power) ... and more rim force at the saw tooth, resulting in higher cutting efficiency.

FOR EASY, PROFITABLE CUTTING!
It's a pleasure to handle the Walker-Turner "900". You'll like the way you can flick the latches and locks, spin the elevating crank, swing the motor and glide through the cut with so little effort. Walker-Turner design gives you full work visibility ... extra protection in the drop-leaf side guards.

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GET THE WHOLE COST-CUTTING STORY—
Here's a radial saw you can use right on the building job to speed construction and occupancy. It's a complete machine as shown—there are no "extras" to buy. Does all the radial saw jobs easier, better, and at less cost! Mail coupon for bulletin describing in detail Walker-Turner's new "900" Series Radial Saw for wood and plastic cutting.

SOLD ONLY THROUGH AUTHORIZED DEALERS
On and Off the Record

RENT CONTROLS—They were scored by Cornelius Tenzinga, Chicago home builder, recently when he declared that rental apartment shortages in Chicago are the result of artificially maintained rent control.

CITY TAXES—Tenzinga further stated that removal of rent control would result in increased rents, and therefore, increased assessments for real estate taxes. He declared that an increase of 36 per cent in rents would produce an additional tax revenue of $22,000,000.

SLUM CLEARANCE—Tenzinga asserted that every builder favors true slum clearance, but denies the need for public housing. Only 30,000 out of a total of 816,200 dwelling units in Chicago are in need of major repairs. Those statistics he declared to be a far better test of the need of slum clearance than descriptions of hardships cases within the slums.

MAKE UNITS AVAILABLE—Tenzinga said that 138,000 units out of the 816,200 would be made available if rents were decontrolled, and tenants occupied their dwelling units with the same intensity as is the case with home owners in Chicago.

PORTLAND, ORE.—The Portland Home Owners Council recently presented the mayor of the city with a request for a public hearing before the city council is asked to approve public housing and the tax set-up that would take effect when the homes are built.

TAX ISSUE—The home owners council proposes to block public housing in the city by persuading the city council to reject the tax agreement.

REFERENDUM—Failing in that, the home owners will ask that the matter be referred to the voters in November.

HOUSING VIOLATIONS—In New York the Citizens’ Housing and Planning Council has announced an 8-point program to get correction of an estimated 250,000 housing violations. They affect health and safety.

SLUM CLEARANCE—This is the best way to effect slum clearance. In nearly every city in the nation there are already laws, which if enforced, would eliminate slums almost over-night. Added to that a little education of people who do not know how to live in houses would go far toward preventing slums.

DEMOLITION—Mere demolition of slum dwellings certainly is no prevention of future slums. The only way to prevent slums is to train people how to take care of dwelling units in which they live, and in the case of rental units—which most of them are—to enforce the law, and make owners conform. Nor is it necessary to demolish most slum dwellings to clear them. Again, it is chiefly a question of law enforcement and education.

MARTIN C. HUGGETT.—In his statement to the City Council of Chicago on the public housing issue he said, “Picture the occupants of public housing. The management shovels his coal, cleans his walks, cuts his grass, paints his fence and then, to keep him from becoming flabby from lack of exercise, they build him a recreation building so that his leisure hours may be occupied, since he does not have either the problems or the incentive of the home owner. And who pays for all this? His hard working tax-paying neighbor across the way.”

DELIBERATE OR STUPID?—A small group of men and women have gone far to sell the American public on the fallacy that work is done only by those who know no better, and that thrift is unnecessary self-denial. Whether this small group is stupid or vicious or both remains to be seen. But the ultimate result, if they get much farther is very clear. The result inevitably must be national bankruptcy.

GEORGE J. COLES—He is chairman of the Institute of Public Affairs in Victoria, Australia. Recently returning to his homeland from a tour of Great Britain and the United States, he wrote, “The contrast between the abundance and prosperity of free enterprise America and the desperate scarcity in Great Britain under a socialist administration is striking ... free enterprise is a grand system capable of bringing immeasurably greater benefits to the mass of the people than any system of over-rigid socialist planning.

“I cannot emphasize too much the importance of the work of educating our own people in sounder economic thinking.”

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Designed to prevent moisture from entering the pores of concrete, brick, stone and wood. Resists or stops on two coats, clear or tinted with any color desired. Tufseal Waterproofing is a non-condensing mineral gum reduced with a volatile solvent which evaporates in a short time, leaving the pores of the treated material permanently waterproofed. Penetrates surface, protects against temperature changes, wind-driven rain, alkali or efflorescence. Prevents absorption of grease, dirt, mud, discoloration maintains original beauty much longer. Mall coupon for complete information and prices.

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Builder LeVelle tells how

BIG HOUSES SELL BETTER!

“Electric equipment is what sells them, and
the kitchens, of course, have Electric Ranges!”

Mr. Harry LeVelle builds houses in North Chevy Chase, Maryland, for people in the upper income brackets. “They rave about the electric equipment,” he says, “including the modern Electric Ranges. 90% of my home sales are to women who love the all-electric kitchen. They want to work in such a kitchen, although you might think that the homemakers in such families would not be doing their own work.”

Mr. LeVelle is convinced that the electric kitchen is his greatest sales factor. None among the appliances that help the homemaker to achieve gracious living, the modern, automatic range, and—OF COURSE... IT’S ELECTRIC!

Each of these Capitol City Homes designed by architect Joseph J. Schlosser, has two or three bathrooms, three to five bedrooms, and a completely electric kitchen with a modern Electric Range. They’re built on lots of ½ acre or more, and sell at from $12,000 to $45,000. According to Mr. LeVelle, electric living is a “must” in a large home. And according to leading builders everywhere, it’s a “must” now in any size home.
A CHICAGO COUPLE recently contracted for the remodeling of the kitchen in the house they have lived in for the past 25 years.

A KITCHEN remodeling contractor was engaged to develop the plans for the new layout, and to do the work. Ten days saw the entire job done, and a Saturday evening saw the couple preparing their first dinner in the new kitchen. The job took them hours, and half way through what had developed into an ordeal for them they both took time out to consider if there might be a way to restore the old kitchen and the old equipment.

THE REASON is that the modern sink, the gleaming new cabinets, and the unfamiliar storage space for utensils, dishes and supplies caused many unlooked for delays.

AFTER THE MEAL the lady of the house moved, as usual to soak a large broiling grid. But when she tried to get it into one of the two compartments of the new sink she couldn't do it. "WHAT," she asked, "do I do now? Is it going to be necessary to scrap this grid, and get a smaller one just because the new sink provides no room for cleaning it?"

THEY BOTH took time out again to consider this calamity, and another which had to do with a can opener which had been mounted on the wall. There was no place that either of them could find in the new kitchen for the can opener. Obviously, some major changes were going to have to be made in living habits and the use of equipment. Was there a way to clean that grid without soaking it or would they have to get another grid? Would they have to give up the convenience of that wall-mounted can opener, or was there something they didn't know about that would do just as well?

MINOR IRRITATIONS included the age-old habit, a carry-over from their youthful days on a farm, of having a dipper or cup hanging near the faucet for drinking purposes. There was no place to hang the dipper or cup in the new set-up.

IMMEDIATE REACTION is that both must be congenital objectors who despise change even if it is good change.

MAYBE SO, but if they are, they are not typical of most people in their

(Continued on page 57)
Westinghouse invites 3,000,000 families to visit YOUR MODEL HOMES DURING NATIONAL HOME WEEK

The full-page advertisement below, to appear in Better Homes and Gardens in September, invites its readers... 3,000,000 of America's best families... to visit model homes... especially those planned and equipped electrically and identified by the Westinghouse job sign—a sign of quality.

Use the Westinghouse 3-Point Plan to help make your homes more salable by including planned electrical features. The plan includes a free promotion package.

DEDICATED TO BETTER LIVING
National Home Week September 10-17

Ask for FREE BOOKS

Better Homes Bureau
Westinghouse Electric Corporation
P. O. Box 966, Dept. 483
Pittsburgh 30, Pa.

Please send me your 3-Point Plan Book and your Book of Ideas—B-494.

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Address
City Zone State
middle fifties. Because while most couples in their middle fifties have been living according to well defined patterns for a long time, even though many of the patterns may be outmoded, inefficient, and possibly unsanitary, they are not opposed to change.

AND THEY DO represent the age bracket which is the most fruitful as prospects for remodeling of all kinds.

NOW, THIS is no attempt to prove or imply that kitchen remodeling or any other kind of remodeling is bad in that it disturbs older people.

IT DOES, HOWEVER, point to one possibility as a condition to tapping the vast remodeling market. It suggests for consideration that a remodeling project or plan is entitled to the same kind of investigation of personal living patterns as that employed by any good designer of custom built houses before plan and design are determined.

THERE IS EVEN less point in remodeling an old house that people have lived in for several decades, without thorough knowledge of their living habits than there is in designing a new house without that information.

THE KITCHEN remodeling firm who designed and executed the remodeling job in question came up with an excellent plan to cope with a bad physical condition, and their work leaves nothing to be desired.

BUT, because they failed to consider what to them were points not worth considering, the owner feel now, even with his new range, refrigerator and wall cabinets, that he has spent about two thousand dollars, with the net result that he has a kitchen not nearly as satisfactory as the old one.

THE CONTRACTOR will get no new business because of the job due to the fact that his customers, while granting that the workmanship is excellent, feel unhappy, and are not loath to say so.

HAD THE CONTRACTOR spent a little more time looking around the original layout and asking a few more questions he could have accommodated the little foibles peculiar to this couple, or he could have suggested new procedures to put into operation with the new design and layout.

(Continued on page 57)
Insulite* Bildrite Sheathing has Twice the Bracing Strength of wood sheathing (HORIZONTALLY APPLIED)

Let this MILLION pound testing machine tell the story. The event took place in a nationally known experimental research laboratory.

The purpose was to compare the relative bracing strength of Bildrite Sheathing and ordinary wood sheathing in full size walls of standard framing.

These facts are important because lack of proper rigidity in a wall can cause plenty of grief and trouble... doors that sag, windows that stick... plaster cracks, warped floors. So a good wall must assure adequate bracing strength.

The sections tested were equal in size, 9'x 14', large enough to constitute one wall of a full-sized room. Procedure consisted of applying pressure laterally until distortion would cause plaster cracks, sagging doors, etc. When the machine was set into action, it reproduced in effect the pressure of storms up to and beyond hurricane force.

THE TEST TOLD THE STORY!

HERE ARE THE RESULTS:

At 1,021 pounds, the panel sheathed with wood had sagged far enough to cause plaster cracks, jammed windows, sagging doors, etc. But at the same figure, the panel sheathed with INSULITE resisted well within the safety margin. Not until 2,179 pounds of pressure was applied did the INSULITE panel sag as far as the wood panel at half that pressure. Bildrite sheathing provides TWICE the bracing strength of wood sheathing horizontally applied!
Avoid costly errors with this...

**NEW UNIVERSAL Level Transit**

Price $165.00
complete with tripod

Now David White offers you, at the lowest price anywhere, the finest of Universal Level Transits with 4½" protected arc, internal focusing and coated optics.

Don't wait if you're in the market for a new all-round practical builder's instrument — see the improved new David White Model 3000 Universal Level Transit now.

You'll find this instrument properly used will be your best insurance against costly layout and building errors. The new 4½" protected arc means easier, more accurate readings, less likelihood of instrument damage through accident. Internal focusing assures you of dust and dirt-free inside lens surfaces, better protection for optical parts and mechanism. Coated optics mean clearer, distortion-free images, sharper definition, positive readings at greater distances and under adverse conditions. Instrument spindle supported on ball bearings for perfect horizontal adjustments.

Ask your nearest dealer to give you complete information on this and other fine engineering instruments. Or write direct to David White Co., 311 W. Court St., Milwaukee, Wis.

We offer complete, prompt repair service on all makes of instruments — levels, transit, hodolites, etc.

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**EDITORS' Round Table**

(Continued from page 59)

**THAT LEADS** up to the acceptance by buyers of new homes of radical changes from the traditional in both design and layout.

SHELTER GROUP magazines and the heads of departments of schools of architecture in some colleges and universities frequently complain that the home builders resist modern design features that offer better living.

THE COMPLAINT is not justified. It is not the builders who resist. Resistance stems from two quarters. One of them is the financing institutions, most of whom look upon modernistic design and radical departure from the traditional with a fishy eye.

They are unwilling to risk large-percentage mortgages on design that is not fairly consistent with what prevails in a given locality.

THEIR REASON for resisting is not without grounds. They know that the prevailing preference is for something generally following the pattern of the houses in which the home-buying couple have been reared. Often, in the case of young couples who prefer modernism in design and layout the bank hesitates or insists upon major changes, with the idea that the house may come back to them and that quick resale will be highly important both in the interest of the lending institution and the defaulting buyer.

There is a better chance for quick resale, they reason, with a fairly traditional house than with a highly modernistic one.

**THESE CONSIDERATIONS** are based on the fact that living patterns are deeply ingrained, and that generally they do not change in the span of one or two generations.

THE OPERATIVE BUILDER, who must risk capital and time on new construction, and gamble that what he produces will sell, must be as certain as he possibly can that what he produces will meet public approval. He cannot afford to nor is he justified in taking long shots with his own money and the money of the lending institution.

IT ISN'T the builder who quarrels with development of new planning and styling. He can go just as far as the proponents of development can educate the public to accept that development.

---

**W. G. GOUGH knows what sells...and it takes ADEQUATE WIRING**

Houses sell faster when they're planned for electrical living. Here's why:

Millions spent in appliance advertising have convinced prospective home purchasers that electrical living is for them.

**Make the wiring a selling point.** You must wire anyway. Adequate Wiring is one of the least costly "plus values" you can add to clinch sales and out-smart less acute competitors.

**Use this selling tool.** For Adequate Wiring information and other sales help,

Just use the handy coupon.

Selling's Less Tiring
With Adequate Wiring

---

National Adequate Wiring Bureau
Department A5
155 East 44th Street, New York 17, N. Y.

Please put me in touch with the nearest local Adequate Wiring Bureau. I'm interested in giving my house more sales appeal.

NAME ____________________________
COMPANY __________________________
ADDRESS __________________________
CITY __________________________ STATE

| 61 |
NEW PRODUCTS
Offered by Manufacturers

FORK LIFT TRUCKS
Models FA-20-24 and FPA-20-24 fork lift trucks with 2250 and 2600 pound capacity are rated at a 24-inch load center. Standard mast of new truck has collapsed height of 64½ inches with an 85-inch lift. Two speed forward and two speed reverse transmission, single hydraulic tilt, raise-lower control lever, and gearshift levers mounted on steering column. Design changes include new steering axle, solid converge plate, larger diameter steering tires, and interchange-able mast. The Bud Co., Dept. AB, Harvey, Ill.

WOODWORKING VISE
Woodworking vise, the Versa-Vise, can be placed on its steel post-type base for use in right or left horizontal, as well as vertical position, and be turned to the most convenient di-

BENCH GRINDER
Six-inch "Home-Utility" electric bench grinder is powered by Black & Decker 1/2 H.P. motor, and supplied with general purpose grinding wheel and wire wheel brush. Can be equipped with different grades of grinding wheels and with rag buff wheels for buffing and polishing. Adjustable tool rests, and wheel guards cast integral with motor housing to give ample protection. Rotor and wheel spindles mounted on full-size ball bearings covered by sleeves to protect them from dust and grit. Weight, 311/2 pounds. The Black & Decker Mfg. Co., Dept. AB, Towson 4, Md.

BUCKET LOADER
Pneumatic-tired Model 543 bucket loader has a 15 M.P.H. road speed, and truck-type worm and roller steering that allows easy maneuvering in cramped places. Economical for truck loading, the loader is ideal for aggregate producers and material yards. Two forward and two reverse speeds. Automatic load trim-ming. Barber-Greene Co., Dept. AB, Aurora, Ill.

HAND TRUCK
"Tricart," a lightweight tubular steel hand truck, has adjustable tripod support and elevator plate that makes loading easier. Weighing 107 pounds, the Tricart handles loads up to 600 pounds. Telescoping tripod is adjustable in-

HAND MOVER TRAILER
Super Hauler, No. 24634, offers safe means for rapidly moving houses, or large and awk-
ward equipment components. Operates similar to ordinary full trailer. Main frame girders are separate units and are easily placed in any desired position under a house. After clearance is provided, flexibility of assembly permits struc-
ture to be easily supported at critical weighted point. Once placed under a load, complete frame and burden are raised in a single effort.

WOOD AUGER BITS
Wood auger bits for use with electric drills are available in 13 sizes from 1/8 inch to 1 inch. Also packed in two handy sets of 6 and 13 bits each. Suitable for all industrial uses and ideal for carpenters, contractors. Made of chrome alloy steel, accurately hammer-forged. Accurately centered by precision machinery. Mirror bright finish. The Midway Tool Co., Inc., Dept. AB, Moline, Illinois.
Regardless of how you utilize NATIONAL LOCK merchandise, you're "in business" profitably. Dealers who take advantage of the popular appeal of NATIONAL LOCK products cash in on this widespread acceptance. Jobbers who feature NATIONAL LOCK know they're providing the very finest to their dealers. And these jobbers profit accordingly. Builders who count on NATIONAL LOCK hardware find it adds extra desirability in the minds of prospective home purchasers. So why don't you look to NATIONAL LOCK for the ultimate in an extensive line of outstanding hardware?

NATIONAL LOCK COMPANY
ROCKFORD, ILLINOIS
MERCHANT SALES DIVISION

DISTINCTIVE HARDWARE...ALL FROM 1 SOURCE
NEW PRODUCTS

(Continued from page 62)

LIFT TRUCK

Model 20, a 2,000-pound capacity lift truck, is powered by new Wisconsin air-cooled engine designed to withstand great extremes in weather conditions. Engine accessory improvements include larger automotive-type battery.

POWER PLANE

AB55015

Guild Plane, Model 105, has interchangeable motor which can be quickly transferred to Porter-Cable’s Guild router, saving cost of additional motor unit. Maximum cutting width, 1-1/4 inches, allows its use in construction from outside doors to finish trim. Operates at 20,000 R.P.M. Weight, 8 pounds. Can be converted into sheaper planer, and also serves as a portable moulding plane when spiral cutter is replaced by sheaper cutters. Porter-Cable Machine Co., Dept. AB, Syracuse, N.Y.

FLORER BOXES

AB55032

Leigh flor box helps dress up a house by their colorful appearance. Finished and ready to install, they are made of heavy gauge steel, zinc coated, banded and finished with two coats of baked enamel. Front and back edges are heavily reinforced. Holes in bottom drain excess water. Furnished in green, blue or ttle red enamel. Length, 30 inches. Air Control Products, Inc., Dept. AB, Cooperville, Mich.

FLOOR VISE

AB55024

Drop-Ramp Floor vise holds heavy doors, windows or plywood sheets firmly in upright position. When door is dropped into unit, weight of door actuates vise to hold it firmly for planing or sawing, hinge and lock work, fitting door knobs, and other work. Fiberboard liner prevents scratching of polished surfaces. Made of 12-gauge steel, it is 9 1/2 inches, and weighs 3 1/2 pounds. Lakeshore Manufacturing Co., 420 H, Dept. AB, 2nd Ave. S., Minneapolis 1, Minn.

ACCESSORY TOOLS

AB55020

Production tools for dressing, grooving and shaping wood include a dado and saw-shaper head, one 7 inches in diameter by 1/2 inches thick for light work, one 7 inches in diameter by 1/2-inch-thick for heavy work, and one 9 inches by 1/4 for radial type work. The first two are for table saws. The heads are singum

NEW PRODUCTS continued

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And on every cut SKIL Saw balance and power make the job easier!

Try SKIL Saw on the tough cuts. Learn what easy-handling really means. Take SKIL Saw with you up on the job. On overhead work SKIL Saw's two handles mean safer, more positive control. On the simple cuts, SKIL Saw leaves one hand free for materials handling. And SKIL Saw, not you, does the work.

SKIL Saw's power and durability make it tops for all construction sawing. Choose from 9 hard-working models with capacities to 4½ inches. Ask your SKIL Tool Distributor to demonstrate easy-handling SKIL Saw today.
Concealed telephone wiring is one detail today's home buyers inquire about—and appreciate.

Built-in telephone facilities involve little work, little cost. Just mark locations for telephone outlets on your plans. Then, during construction, a few lengths of pipe or tubing can be built into the walls to carry telephone wires to the outlets.

Your Bell Telephone Company will be glad to help you in planning telephone wiring facilities. Simply call your nearest Telephone Business Office and ask for “Architects and Builders Service.”

Bell Telephone System

American Builder
This well-known Richmond Seal, proudly attached to every unit shipped, is your guarantee that Richmond standards in design, materials and craftsmanship are rigidly maintained.

**Model SG—Gravity Warm-Air Unit**—Made with heavy-gauge steel heat exchanger—finished in light-green hammertone baked enamel. Easily assembled. Simple, economical and trouble-free in operation. Made in two sizes: 70,000 and 90,000 Btu input per hour. A.G.A. approved.

**Model SU—Forced Warm-Air Unit**—Sturdy, rounded-corner casing. Made with heavy-gauge steel heat exchanger and finished with a light-green baked enamel steel jacket. Shipped assembled, two sizes: 85,000 and 110,000 Btu input per hour. A.G.A. approved.

Both Units Made in Two Sizes...giving you four new GAS-FIRED, high-quality, efficient heating units, ideally suited for use in low-cost competitive homes and home developments. Use the handy coupon at the lower right to get detailed data and specifications.
"Moulders of Progress", the new 30-minute Eljer motion picture in full color and sound, shows the spectacular methods by which plumbing fixtures and brass fittings are manufactured in Eljer factories. Never before has this "inside story" been told in such a fascinating manner.

Already at more than a thousand showings... in the building industry and to the public... people everywhere have marveled at the production achievements that make sanitation in the home possible. And public interest in this beautiful film is tremendous.

You can borrow a 16 mm print of "Moulders of Progress" without charge for showing to your trade association, club, school or any group meeting. Simply see your Eljer Distributor or write direct to Eljer Co., Ford City, Pennsylvania.

It pays you, it pays us—because we specialize in Plumbing Fixtures and Brass
ASSOCIATIONS
Their Plans and Activities

NAHB Executive Committee Appointees Announced

Appointments to the NAHB executive committee have been announced by President Thomas P. Coogan. 1950 committee members are: President Coogan, Rodney M. Lockwood, Detroit, 1949, president; William P. Atkinson, Oklahoma City, first vice president; Alan Brockbank, Salt Lake City, second vice president; Nathan Mandle, Chicago, treasurer; Joseph Haverstick, Dayton, Ohio, secretary; Paul Burkhard, Glendale, Calif.; Frank Burns, Denver, Colo.; George Goodyear, Charlotte, N. C.; R. G. Hughes, Pampa, Texas; B. A. Martin, Atlanta, Ga.; O. G. "Bill" Powell, Des Moines, Iowa; and Emanuel M. Spiegel, Passaic, N. J.

In addition to the executive group, Coogan appointed a President's Advisory Committee, with provision made to increase or decrease membership as needed. Named to this committee were Fritz Burns, Los Angeles; Edward R. Carr, Washington, D. C.; Robert A. Breadly, Baltimore, Md.; William B. Dixon, Jr., Pittsburgh; and W. Hamilton Crawford, Baton Rouge, La.

Interest Remains High In Dealer Conventions Throughout U. S.

Reports from dealer regional and state conventions held in all sections of the country indicate that attendance has remained at record or near-record marks. There are in many cases more exhibitors this year and a greater diversity of exhibitors.

As in previous conventions since the war, much attention is given to legislation before Congress which affects the industry. Increased emphasis is also being placed on group discussions of business operations, with convention schedules calling for an increasing number of these sessions.

Summaries of activities at nine of the meetings are given below:

Ohio

Emphasis at the 69th Annual Convention and Exposition of the Ohio Association of Retail Lumber Dealers was placed on the need for low-cost housing and the preservation of the free enter-

(Continued on page 72)

MAY 1950

'Log Cabin to Budget Home' Theme of Chicago Show

The Greater Chicago Home Fair, to be held at the Chicago Navy Pier May 13-21, will stress accomplishments in living comforts and conveniences during the past century. The home show is sponsored by the Chicago Metropolitan Home Builders Association in cooperation with the Chicago Herald-American. Successive steps in home progress, "from the log cabin of 1850 to the budget home of 1950," will be dramatized.

Detroit Builders Sponsor 'Sons Banquet'

GROUP at "Sons Banquet of Builders Association of Metropolitan Detroit. Edmund Kuhiman, director and member of the executive committee, served as sponsor for the event.

Since the meeting, the first of its kind to be held under the auspices of the local association, was for sons only—fathers were barred. At the speaker's table were Earl C. Doyle, managing editor of the Detroit Association's official publication, the Bildor; Henry F. Fett, past Detroit Association president; Kuhiman; John Wehmart, Detroit Association president, and Wallace A. Coolwell, Detroit Association executive secretary. But no speeches were made. The get-together was "strictly for the sons."

NAREB Leaders Visit Europe

Robert P. Gerholz, Flint, Mich., president of the National Association of Real Estate Boards, and Herbert U. Nelson, executive vice president, recently returned from a two-week visit in Great Britain, France and Belgium, where they studied property managements and all phases of home building and real estate.
Cy Sweet Says—

C. B. SWEET, President, National Retail Lumber Dealers Association

Are you a LIFTER or a LEARNER?

This question is a most timely and significant one because we all know that during recent years an alarming portion of our population has joined the ranks of LEARNERS, people who have come to lean upon the government for support. Most of these citizens have been misguided through misinformation, and through unadulterated demagogy, to believe that perhaps it is the function of government to furnish all kinds of props upon which they can lean for support.

Our forefathers, literally speaking, lifted themselves up by their own bootstraps from a condition of social, religious, and economic slavery and tyranny, to a position of free men and women. When they fought for their independence they were not merely protesting against a tax on tea. They were fighting for a nobler purpose, they were fighting for the right to choose their religion, their job, their profession, their purchases, and to be free to enjoy the fruits of their labors, ingenuity, and abilities.

Out of this, ultimately, came the unparalleled achievement of 7 per cent of the world’s population, producing more new wealth than all of the other people in the world. It was achieved through the spirit and philosophy of the people wanting to be LIFTERS.

Unfortunately, in recent years a new philosophy has come into being, ushered in by expert planners. These planners said, “Why tire yourself trying to lift, there is a better and easier way, let the government give you a prop to lean on.” The props were named—Social Security—Public Housing—Public Medicine—Public Power and Federal Education.

The planners, however, neglected to tell the people that the props they were offering would cost billions of dollars, continued deficit financing, and ultimate bankruptcy of the government. They further neglected to say that the priceless heritage of personal freedom was being traded for these props.

The time has come when we must all again band together and, like our forefathers, become LIFTERS, in order to check the forces intent upon making this a country of LEARNERS. We must never forget that this nation was not built by LEARNERS, but by LIFTERS.

Joseph Quinn Named to Staff of Long Island Institute

Joseph Quinn, past vice president of the American Gas Association in charge of industry, and for 25 years industrial and commercial sales manager of the Brooklyn Union Gas Co., has been named assistant to Otto J. Hartwig, executive secretary of the Long Island Home Builders Institute to fill the place of Lorenzo Pardo, who died last December. It has been announced by Leonard L. Frank, president of the Institute. A native Long Islander, Quinn, who lives in Freeport, N. Y., has been engaged for the past five years in trade association work. Having studied at Massachusetts Institute of Technology and Columbia University, he is an industrial fuel engineer by profession and is a past president of the Brooklyn Engineers Club.

49 Complete Short Course In Lumber Yard Operation

A dinner honoring 49 graduates climax a short course in retail lumber operation and merchandising conducted by the University of Massachusetts, Amherst, under the sponsorship of the Northeastern Retail Lumbermen’s Association. The dinner, at which certificates of completion were awarded, was held recently at Amherst and was attended by a number of Association members and college officials.

This was the tenth institute of its kind sponsored by the Association. Students heard more than 200 hours of lectures and received approximately 165 publications related to their work.

Certificates were awarded by Dr. R. A. Van Meter, University president. John W. Dain, president of the Northeastern group, made the graduation address.

Business to Double in ’50, Perlite Institute Told At Semi-Annual Meet

Wharton Clay, secretary-treasurer of the Perlite Institute, told members attending the semi-annual meeting that their industry will expand 250 per cent during 1950 over 1949 production levels. The dollar volume of business to date exceeds $2,350,000.

More than 80 members of the institute, mineral, manufacturers, and fabricators of perlite, met for the third semi-annual meeting at the Knickerbocker Hotel, Chicago, March 14-15 to discuss the future of their rapidly expanding trade.

Among the speakers at the meeting were Dr. Lansin S. Wells, Chief of the Plastering Section, National Bureau of Standards, and P. H. Peterson of the Technical Branch, Housing Research Division, Housing and Home Finance Agency.

Peterson recently prepared the exhaustive study, Lightweight Aggregate Concrete, published by the NOAA. During the session he stated that “We are interested in the development of lightweight aggregates because of their promise to reduce costs of construction, improve insulation values and lighten weight of the structures. This may be brought about by the use of lightweight aggregates in roofs, concrete floor slabs and in gypsum plaster and possibly other ways.”

The institute was organized in April, 1949, and held its first meeting in September of that year. Its purpose is to share technical advances among the members, to publicize the advantages of perlite, and to effect standardization and economies for the benefit of the builder and building customer, Wharton pointed out.

The directors of the Perlite Institute are: T. C. Carter, president; J. Don Alexander, vice-president; O. N. Gregg; C. H. Hall, and S. W. Johnson.

President Carter stated that the advances to date made by the members companies of the institute have been very satisfying and that the technical data for presentation to the building industry is being rapidly gathered.

Other speakers and advisers attending were: D. M. Catton and C. M. Carlson, Portland Cement Association; E. M. Lane, national director, National Foundation for Lathing and Plastering; E. D. Quannstrom, Lathers’ Union; Thomas Dowling, Chicago Plasters’ Local; Byron Dalton, Chicago Plastering Institute; Joseph McNulty, plastering contractor; and Henry Penn, district engineer, American Institute of Steel Construction.
John Weinhart Elected President of Detroit Builders Association

John Weinhart was recently elected president of the Builders Association of Metropolitan Detroit at an election meeting of the Board of Directors held in the Detroit Harmonie Club.

Other officers elected were Edward Rose, first vice president and chairman.

Oklahoma A. & M. Offers 4-Year Dealer Course

A new four-year course for building material dealers will be included in the 1950-51 curriculum of Oklahoma A. and M. College, Stillwater, college officials have announced. The course will lead to a B.S. degree.

The educational committee of the Oklahoma Lumbermen's Association, consisting of Chairman K. A. Parker, Ponca City; Bud Everitt, Enid; R. O. Fox, Stillwater; Walter Kelly and Dale Carter, Tulsa; and W. M. Morgan, Association secretary-manager, conferred with school officials in planning the courses, which will be offered for the first time next September.

Field Secretary Appointed by Columbus Group

Robert R. Davis has been appointed field secretary of the Columbus, Ohio, Home Builders Association, the Association president, J. Alfred Shuman has announced. Davis, a Columbus resident, will work on membership, call on builders, assist with promotions and publications.

A World War II veteran, Davis has had real estate and banking experience.

Cortright's Column

FRANK W. CORTRIGHT, Executive Vice President, National Association of Home Builders of the United States

YOU GET THE KIND OF GOVERNMENT YOU DESERVE

Washington is the craziest place in the world.

At the same time, it is the capitol of the world, and your welfare and that of the generations to come is in a large part dependent upon the decisions made here.

After eight years of constant work with the Congress, with the administrative agencies of government and with other trade association groups, I find it an increasingly difficult and challenging place. It is challenging because the governmental machine grows bigger day by day and it is difficult because our competitive capitalistic profit-earning system is being replaced with the ideology of the "Social Welfare State."

One peculiarity of Washington is that people who come here to work invariably change. Before long they become important or unimportant. Many politicians become Ponderous, Pompous or Pontifical. Some Parlors or Penthouse Pinks become outright Reds. Crusaders become Profound Protagonists of various causes.

As in every city, there are the Poor, the Pathetic, the Powerful, the Patient and the Pitiful, but all of them before long become POLITICAL. It is a characteristic of everyone in Washington to play the game of political expediency, log-rolling and a variety of tricks.

Endeavoring to work through all this welter of legislative and administrative currents are literally thousands of representatives of religious, agricultural, industrial, educational, veterans and labor organizations.

It is tragic that through the years, the term "lobbyists" has taken on the connotation of slyness and evil intent. The fact is that the legislative body of our government never has—and never can—function satisfactorily without the information supplied by these representatives of organized American life—these lobbyists.

I know of nothing more unfortunate than the fact that the American people have been misled in this respect and have, as a whole, failed to become lobbyists individually and support the lobbyists who are honestly trying to influence legislation in a practical and constructive manner.

As a people, we have a childishly naive belief that someone else will select and elect good Congressmen and Senators. We vote for party candidates because we like their photographs or oratory. After election, it never occurs to us that they must vote on hundreds of issues each year, and that their votes will be cast the way a small vocal minority of the constituents suggest.

Those of us who endeavor to be constructive and effective lobbyists succeed only as our membership responds to our request for constituent influence on their elected representatives.

Reducing this to simple language, it means that if you do not take time to send good men to Congress—and if you do not advise these men from time to time regarding the facts of the legislative problems before them—you will get bad laws.

A sufficient number of bad laws will eventually weaken your business no matter what it is—will give you an unsupportable tax load and, worst of all, will eventually destroy the free enterprise economy under which we as a nation have so greatly prospered.

Therefore, I say to you, that no matter what you think of Washington—and "mad house" is the term I most often hear applied to it—do not forget that it is the place where the future and safety of our economy and our nation is located. It is peopled with and run by fallible human beings just like you and me—from the White House down to the humblest bureaucrat. It is your job and your responsibility, along with 148 million other American citizens to be concerned with it and to do something about it—we can only be as successful in serving you as you make it possible for us to be.

IN OTHER WORDS, YOU WILL GET THE KIND OF ECONOMY AND THE KIND OF NATION YOU DESERVE!
100,000 Visit Seattle Show

VIEW of section of Seattle Home Show. Throng of visitors is example of high attendance.

Approximately 100,000 persons visited the 1950 Seattle Home Show and Household Fair, sponsored recently by the Seattle Master Builders Association and the Seattle Post Intelligencer. The nine day event was held in the new field armory.

One of the show features was a 1,650 square-foot model home designed by John I. Mattson which presented unusual treatment of plan, materials and equipment. [Rendering and floor plan of Architect Mattson’s model home are shown in back pages of this issue.]

A “Dream Home” contest for house models also attracted wide interest. The competition was open to all persons except professional architects and builders.

Press. Radio Luncheons Prove Good Association Public Relations Activity

An experiment in public relations by the West Coast Lumberman’s Association has shown outstanding results according to a recent statement by Association officers.

“One year ago,” the statement said, “the Association invited radio and newspaper people to luncheons in our two largest centers of population (Seattle and Portland). We found that they welcomed the opportunity to get together under outside sponsorship. It was understood that we were not after direct publicity from the meeting, but that our purpose was to supply information on the situation and prospects of the region’s most important industry. Questions were invited.”

The story at that meeting was of the success of the Association’s advertising and promotion work for the economy grades of West Coast lumber—particularly its marked effect on the solution of the problem of increasing forest utilization.

“We left these molder of public opinion convinced that the progress shown in this phase of forest conservation was a certificate of the permanence of the West Coast forests and lumber industry,” the statement continued, “and that socialized forestry is not needed.”

WISCONSIN

All previous attendance records were broken at the 60th annual convention of the Wisconsin Retail Lumbermen’s Association, despite bad weather throughout most of the state. 3,384 registered for the meeting, which was held Feb. 14-16 at the Milwaukee auditorium. The record for number of exhibits was broken when 196 were occupied by 177 exhibitors.

Other record-breaking marks were: 456 persons at the Royal Order of Dumb Bells luncheon, 894 men at the Has-Hoopy party and 984 persons at the dinner-dance. Among the guests of honor was Mrs. W. O. Hoffman of Fort Atkinson, who was attending her forty-sixth consecutive convention.

Attendance at business sessions was equally good. Among the speakers were Clyde A. Fulton, WRLDA vice president; Edward G. Gavin, American Builder editor; W. H. Schmidt, Jr., transportation editor, Railway Age; C. W. Wright, Toronto, Canada, sales consultant; Harrison Wood, radio commentator; and G. F. Hoppe, sales pro-

J O H N M . H O R N

John M. Horn of Hamilton was elected president, succeeding J. Irvin Jones, Columbus. Completing the officers’ roster are: William M. Stine, Bryan, first vice president; James E. Clemens, Youngstown, second vice president; Allen Brain, Springfield, treasurer; Findley M. Torrence, Xenia, secretary; and Charles E. Benson, Columbus, field secretary.

SOUTHWESTERN

Dealer discussion groups were one of the most popular features of the 81st annual convention of the Southwestern Lumbermen’s Association, held at the municipal auditorium, Kansas City, Jan. 25-27. Registration for the meeting was 3,162 and there were 130 exhibitors.

The 12 discussion sessions included such subjects as “Financing Home Construction,” “Advertising and Public Relations.”

(Continued on page 150)
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Oak Hills Park Homes, Newton, Massachusetts

Kenneth Edlin
Architect, Skokie, Illinois

John La Porte
La Porte Project, Portland, Oregon

Andrew Miller
Miller Homes, Bethpage, L.I., N.Y.

Kelvinator featured exclusively, nation-wide, in the Good American Home Program.
What Price Freedom

WHAT can the home building industry afford to spend on public relations? How much is it worth to awaken the public to the danger of the drift toward national socialism, clearly exemplified by the public housing bill passed by Congress last year? How much is it worth to arouse the workingman and the small home owner to a realization of the fact that the price of public housing, public medicine, and government ownership of railroads and utilities is individual freedom and government confiscation of private incomes through exorbitant taxes, wastefully spent by Washington bureaus?

What is it worth to make the American public realize that every time any man sends one dollar in taxes to Washington to feed socialistic bureaus, only a fraction of that dollar ever returns, and that in the form of alleged benefits of extremely questionable value to anyone? What is it worth to prove to the public that government paternalism is no different than any other kind of paternalism—that it means control, direction and regimentation of all individuals? What is it worth to arrest the present drift to economic calamity and individual subservience to big government with an array of simple facts, plainly told?

Probably no one will know what it is worth until and unless the opportunity to appraise the value of what is at stake has passed. There are, however, some criteria, and there are some concerted and successful efforts being made to devise and finance programs of public education. In Chicago the home building industry—all segments of it—through the offices of the local home builders association raised $25,000 entirely apart from dues to any association for a public educational fund to be spent locally. In Seattle the industry raised enough to tell the voters the hoax of public housing, and defeated it there in a referendum vote, 57,732 to 33,529. In Yakima similar action defeated public housing seven to one. In a host of other cities comparable results have been obtained.

The fact that public housing has been beaten in many cities by referendum, permitted but not prescribed by law, does not mean that the issue is settled in those cities. The proponents of big government and socialism are well organized and well financed. The battle, now at the grass roots level, has only really begun in earnest.

The champions of freedom will have to fight at both the national and local levels, and will have to fight with money as well as effort.

What is it worth? It is worth that price at which every man in his own mind values his birthright and the birthright of his children. It is worth what every man believes is the worth of the sacrifices that have been made since 1776 to create a nation dedicated to the cause of individual freedom and the personal incentive of free enterprise that gives every man his chance. The issue is clear. The question is whether this generation chooses to reach into its pockets, and to spend its time and effort to guarantee its children the same freedom and opportunity that it inherited from its forefathers.
EDITOR'S NOTE: Due to the significant role power tools and equipment are playing in the attainment of today's housing record, American Builder again takes the reader on the job to see how these tools and equipment are used to save time and money.

In this age of advanced technology when the key word is power, old methods of labor by hand are disappearing — slowly in many cases, faster in others. In some cases the transition from no power tools and equipment to a few has been so gradual that the builder himself cannot give an exact date for the changeover. In other instances, the change has been overnight — as quickly as a builder could be convinced that the change meant dollars saved.

The following stories offer convincing proof to the builder — that modern power tools and equipment can save money; and that they are playing a leading role in today's housing achievements and in tomorrow's plans.

SALESMANSHIP days of Barnum and Bailey may be gone forever, but their dynamic showmanship is far from forgotten. These master promoters would have liked an outburst of enthusiasm shown not long ago in Tecumseh, a small Michigan town with large ideas. Motivation for an unusual event came about when a local lumber dealer, R. S. Moore, faced the job of promoting construction of a 180-house project.

Because of a liberal offer made to citizens who would build on a tract of land provided, promotion promised not to be a difficult task. But Moore, with a flair for showmanship, saw more possibilities than the usual first-spateful-of-dirt ceremony preceding such a job. There were, he thought, dramatic possibilities for a real promotion job — with the power tools and equipment to be used in the project.

Two days before official opening of
Power Tools Go On Parade

the project. Herrick Park, Moore untapped his idea. Newspapermen converged on the town, cameras clicked, and almost overnight practically everyone in Michigan knew about it.

Moore’s idea: When power tools and equipment follow a band on parade down main street—that’s news. And it was. Everything from power hand saws to large excavating and earth-moving equipment was in the parade; in fact, all power tools and equipment used by five builders who were to participate in construction of homes in the project went down a crowd-jammed main street, preceded by a high school band. Local citizens lined the streets; then a few days later, lined up to buy homes in the new subdivision.

For the power tools and equipment, it was just the beginning. Today, two years and over 60 homes later, Herrick Park is developing into the town’s proudest addition. And the same tools and equipment are contributing as much to cost savings in erection of homes as they did to a sensational promotion job. Through cost savings made possible by their use, and through a generous citizen, R. W. Herrick who bought and offers lots in the subdivision free to qualified persons who build there, more than 60 families have bought homes for as low as $7,000 and as high as $25,000.

Homes completed in the 52-acre tract so far have been conventionally built, both to sell and on contract. Herrick, president of Tecumseh Products, had the tract subdivided into three lot sizes, 50 x 120, 70 x 150 to 160, and 100 x 200 to 300 feet. Depending on the size of the lots, homes were to be built in what he termed A, B, and C classes. Homes in the A class sell for about $25,000; those in B for about $10,000, and in C, about $7,000.

Any local builder was invited to build in the subdivision, and five building firms so far have participated. As might be expected, a pleasing variety in design is one of the results.

Power tools were used extensively by all of the participating builders, though most of them with one exception did not build over 10 homes per year.

How power tools save money is explained by Builders Kempf and Matheny, who have completed three A homes and one B home in the project. These builders employ an average of six men, and supply them with enough power tools so the amount of work they complete is more than twice the amount they could complete without them. Says Matheny, “It used to require five men to do the necessary frame work on a job with our firm. Now, one man with a power hand saw can do the same amount of
work.” He indicated that comparative cost savings are made with other power tools he uses, though, with one exception, he makes no special use of them. The exception is a power hand saw bolted to a table.

The lightweight saw table built by Matheny has an opening for the saw blade and provisions for bolting a saw to the underside. The saw is attached upside down. “It is easier to see pencil marks on the piece you are cutting. since teeth of the blade keep sawdust out of the way and you don’t have to look over the end of the saw to see the mark,” he explains.

Other power tools used by this building firm include a tilt-type cement mixer, three floor Sanders, one edger, a table saw, joiner, hand saw, mortiser, drill press, and three additional power hand saws.

One A class home just completed by Kempf and Matheny in Herrick Park offers a good example of the quality work done by these and other builders in the project. The home has a full basement with 7 feet, 3½ inches clearance from the basement floor to the first floor joists, a Heatilator fireplace in the living room and in the basement, and all copper plumbing. Kempf and Matheny take pride in their carpentry, and this offered them a good opportunity to demonstrate their work. The power hand saw attached to the table, Matheny says, is especially handy for this type of work since the unit may be easily moved from one room to another, or from one job to another.

The basement of the house has a large game room with a bar at one end; a spare bedroom just off the game room, and ample space left over for a home work shop, furnace, water softener and water heater. Laundry provisions are adjacent to the kitchen on the first floor. Almost all of the basement is carefully finished in knotty pine. Built-in shelves behind the bar are knotty pine, with McKinney ornamental iron hardware on the doors.

Builder to complete the most homes in Herrick Park is Clifford Riley, who has built about 40 homes to sell (32 in the low priced range), and plans to build 15 or 20 more this year. Power tools used by Riley include five hand power saws, two table saws, two concrete mixers, several hand Sanders, and an electric threading machine for plumbing. Riley gives this example of how power tools save money for his firm:

“Four men usually constitute our carpentry crews, using power tools. Without power tools, it would require at least six men to do the same amount of work.”

CONVENTIONALLY built homes offered by Builder Clifford Riley in Herrick Park sold for less than $7,000, with full basements.
PARTIAL LIST OF POWER TOOLS
USED IN HERRICK PARK: Allis-
Chalmers Manufacturing Co., bulldo-
zers; American Floor Surfacing
Machine Co., saws, spindles, edgers; Chain Belt Co., box concrete mixers; DeWalt, Inc., table
saws; Ford Motor Co., trucks; Fred
W. Wappat, Inc., portable hand
saws; J. D. Wallace & Co., table
saws, jointers; Mall Tool Co., port-
able hand saws; Skill Saw, Inc.,
portable hand saws, sanders,
drills; The Joeger Machine Co.,
concrete mixers; Unit Crane and
Shovel Co., shovel and drag line.

Riley employs no prefabrication
methods, though he uses jigs on the
job for framing. Enough material is
usually cut at one time to frame four
houses by using these jigs and power
saws. Five completely different plans
are used for the houses, which are
conventionally built throughout. Riley
reports that all homes built by his firm
last year were sold before completion.

Other builders to complete homes in
the project besides Riley, Kemp and
Matheny, are M. H. Thielan, Bradley
Construction Co., and Fred Myers.
Excavation was done by Charles O.
Winters, who used a power shovel
and drag line, two bulldozers, hydrau-
lic dump equipment, and several one,
and one-half ton trucks. Materials for
the homes were supplied by the R. S.
Moore & Son Co., of Tecumseh.
A SIMPLIFIED system of materials handling and the use of power tools enables a Chicago building firm to average one completed home a day. The system is based on the premise that power tools can work at the peak of their productivity only when material is properly channeled to them.

The builders, H. Morton Robbins & Associates, say time-saving begins in their operations before lumber leaves the yard. Usually, one truck is loaded with enough material to rough frame one house, and lumber is stacked on the truck according to a method commonly in use in many lumber yards supplying material for larger projects. The last piece of material to be used on the house is on top of the truckload, so that after the truck is unloaded at the house under construction, the first material to be used is on top of the stack, easily accessible to the rough framing crews.

For instance, when lumber is stacked in front of the house, floor joists will be on top of the load; then subflooring, 2x4’s, ceiling joists, roof rafters, and roof sheathing, in that order.

Whenever possible, this firm starts all homes that are to be built along one side of a block at once, about six or eight homes. A crew of from 15 to 20 men work in pairs, and one, two, or three two-man teams work on the house at one time, depending on what stage of construction the house is in. They use power hand saws and gasoline powered, portable generators.

WHETHER it’s heavy, fast-moving equipment like this used on their project, or small-power hand tools—the Morton Robbins firm maintains that if you keep the tools busy, power tools more than pay for themselves.
Day with Power Tools

Efficiency of power tools and equipment depends largely on how well you keep them busy, says this Chicago builder who co-ordinates his activities to eliminate waste time.

Rough framing starts with two men who cut and erect floor joists, and erect and level beams.

The second two-man team levels the plates and marks off window and door openings. A third team of three men nails the plates to studs, completes assembly of exterior walls on the ground, and raises them into position.

The fourth team of two to four men install window frames and sheathing on the walls, and the fifth team of two men installs ceiling joists and nail blocks for facia. Rafters are erected and sheathing is applied on gable ends by the sixth team of two men, while the seventh two-man team, in about three days, completes framing the partitions. When the last team leaves, the house is ready for lath and plaster. In the meantime, other workers not working as teams have laid the subflooring, helped raise exterior walls, applied sheathing and roof covering, and completed jobs necessary to get the house under roof. Electricians and plumbers have finished by the time the seventh two-man team completes its work.

Throughout the whole procedure, efficiency of the system depends on close timing and the organization of men and materials so that the power saws and generator are kept busy as much as possible. Since the houses are close together, little time is wasted by moving equipment from one job to the other, and the system is so worked out that one team seldom has to go...
THREE portable generators (background) are used.

HAND powered router does the work of several men.

back to a job once it has completed an assigned task.

Power hand saws and generators are only a small part of the variety of power tools and equipment used on the 184-house project nearing completion by the Robbins firm. Besides employing a large battery of excavating and earth moving equipment (subcontracted), the firm used three concrete mixers, a plaster mixer, drills, groovers and other power tools, and Robbins is quick to point out their importance in the attainment of construction speed.

Besides the current 184-house project, H. Morton Robbins & Associates have completed 30 single family units and 26 row house apartments in Evanston, Ill.; 46 single family units in Edgebrook, Ill.; 10 apartments and 40 single family units in Park Ridge, Ill.—all in the past two years. Says Robbins, “Power tools are time and money savers, and without them we certainly could not have accomplished what we have in this amount of time.”

Concerning individual tools, Robbins believes that hand power saws save well over 50 per cent on cutting; that power portable generators save much time since they are easy to move.

ONE of firm’s largest mixers in action.

FLOOR PLAN

FLOOR plan of typical Robbins home.

H. MORTON ROBBINS homes sell in Chicago for $11,200 and $12,500 with 45 x 120-foot lots. Kitchens are equipped with steel cabinets. Bathrooms have colored fixtures.
HOMES along one side of block were started at the same time, and as illustration shows, each will be completed at the same time around, and that "they provide more power than we would be able to get from regular line power." Robbins, who has used "as many power tools as practicable" since he came into the home building business in 1938, had several years of experience with them before that. During the 20's he specialized in industrial and apartment work.

Homes completed in the current Robbins project sell for $11,200 and $12,500 on 45 by 130-foot lots, and offer good value for the money. Floors are oak except in kitchens, which have inlaid linoleum, and baths where Ceramic tile is laid. Ceramic tile is used to enclose tubs and showers in bathrooms, and plumbing fixtures are colored.

All windows and doors are weather-striped and screens are provided. Kitchens are equipped with steel cabinets. Heat for the homes is supplied by automatic gas-fired forced warm air furnaces.

Excavation equipment used on this project included a power shovel, a front-end loader, tractor and self-loading scraper, and a grader. Subcontractor R. W. Dupeeman, owner of the equipment, says the power shovel can move about 500 cubic yards of dirt in one day; that the front-end loader can dig two average-sized residential basements per day or backfill four or five. High speed in handling dirt may be achieved with the self-loading scraper, he explains, since it automatically picks up dirt, transports it at high speed to any desired destination, then automatically ejects it.

POWER TOOLS AND EQUIPMENT
USED: ADAMS MANUFACTURING CO., grader; ANCHOR MANUFACTURING CO., mortar mixers; BAY TUBE CO., power shovel; CITY SHOVELS, INC., power shovel; CATERPILLAR TRACTOR CO., front end loader and scraper; HOMELITE CORP., gasoline-powered generators; SKILSAW, INC., power hand saws; STANLEY TOOLS DIV., THE STANLEY WORKS, groover; THE JAGER MACHINE CO., concrete mixers.
OBSTACLES SURMOUNTED
WITH POWER TOOLS

FELIX CASTE, president of the Caste Development Co., of Pittsburgh, Pa., has been building in this area since 1922. His firm is responsible for the development of a number of large housing projects. Overlook Acres, the development featured in this article, is currently in the process of completion.

Due to the hilly terrain that exists in and around the city of Pittsburgh, Caste is confronted with the task of moving huge quantities of earth in the process of building. Most of his projects are started from scratch. After acquiring a virgin area of ground his firm puts in all the underground and surface work such as the sewer, water lines, leveling, filling, grading, paving and curbs before any actual construction work is started on the houses.

The fact that Caste is able to estab-
THE bulldozer and crawler shovel are part of the heavy equipment owned by the Caste Co. to carry on their large scale operations. The shovel is used for digging foundations. It moves 1/2 cubic yard of material with each loading of the bucket. The bulldozer is used for all types of jobs.

lish economies and maintain values comparable with houses that were offered to the public twenty years ago, in spite of natural handicaps, is due in part to the extensive use of power tools and equipment. An adequate supply of equipment of this nature is owned by the Caste Co., and is carefully maintained and made available for all the men. The power tools include everything from hand saws to heavy earth-moving machinery including bulldozers, crawler shovels, dozers, shovels, ballgrader, graders and rollers. They find that through ownership of this type equipment there is a great saving in time by not having to wait around for rental equipment. In this manner Caste maintains control of all the various phases of his operations with a minimum loss of time.

In his building operations over the past twenty years Caste has held to a standard type, two-story house that is offered in the medium and low-cost price bracket. This type of house has met the needs of the community it was built to serve, with the result that the design has remained fairly static with improvements made to conform to present conditions. This permits the company to accurately compare the cost of homes built in 1949 with those built in 1929.

In 1929 a 22 x 24 foot, five room, two-story house was offered for sale for $7,500. The '29 house did not include insulation, copper piping, gas-fired furnace or 180 pound asphalt roof shingles and only half the number of
The dozer-shovel (better known as a high-bob) is frequently used for excavating electric outlets that were contained in the '49 edition. Downspouts were not connected to the sewer; a wood floor was placed in the bathrooms, and Keenes' cement wainscot was marked off on the walls. The maximum width of a lot was 30 feet as compared to the minimum of 50 feet now required. Paved roads, curbs and gutters were not included in the price of the house. These were taken care of by the new purchaser at a later date. The prototype of the 29 house, including all the items mentioned together with complete landscaping, is now offered by the Caste organization for $10,900.

Overlook Acres contain approximately 300 homes ranging in cost from $10,900 to $12,200. The majority of the houses are the six-room, two story type, with full basements, and garages. Others are one-and-one-half story houses with four rooms on the first floor and with the half story left unfinished. Complete basement includes garage.

A number of exterior variations are used, including combinations of wood and brick, change of window fenestration, roof lines and color combinations. The position of the garage in relation to the house changes in accordance with the ground profile. The development site, being extremely rolling, required a great deal of cut and fill for streets and buildings. Economy has dictated a pattern of approach from street to house.

The present Caste organization is built up almost entirely on mutual confidence which has engendered loyalty and good will among the employees over the course of years. Management and labor have never been in any serious disputes. All the employees are considered a part of a permanent group, with equal consideration being given to each employee, whether laborer or superintendent. The policy has developed a spirit of cooperation within the organization that has paid out in dollars and cents through greater efficiency of operation. A continuing program of work, arranged to keep the men busy during all kinds of weather, is responsible for the sustained confidence of the workers.

All of the above adds up to just one thing: reduced costs is enables Caste to offer to the public a better house for less money than his competitors. His sales organization is composed of one man. Advertising is unnecessary because this company's efforts are well known in the Pittsburgh area and the name Caste is synonymous with good workmanship and a fair price.
**Ratio of Value to Cost '41 — Present**

A COMPARISON of costs on the Stevens plan, one of a series of houses completed in 1941 by the Catranel Construction Co., Pittsburgh, Pa., with the Gilmore plan houses, part of a recent development by the same company, brings to light some interesting facts.

The increase in home construction costs has in most instances been attributed to labor and material. In the following schedule Roland Catarinella, son of the founder of the business, sets forth a brief comparison of the two plans.

**STEVENS PLAN — 1941**

Lot size ........ 56 feet by 110 feet
Street Improvement . County road, bad condition
House size ........ 21 feet 6 inches by 26 feet 6 inches
House description . Brick veneer, six rooms with bath, integral garage, 1,140 square feet
Kitchen and bath ...... Linoleum

Plumbing ........ Copper throughout
Furnace .......... Coal fired
Coal bin under stoop, non-wood burning fireplace with mantel.
Sales price .......... $6,705.00

**GILMORE PLAN — PRESENT**

Lot size ........ 50 feet by 190 inches
Street Improvement . Asphalt top street with rolled concrete 30 feet dedicated curb
House size ........ 21 feet 6 inches by 28 feet 4 inches
House Description . Brick veneer, six rooms and bath, integral garage, 1,215 square feet
Kitchen and Bath ...... Linoleum
Plumbing ........ Copper throughout
Furnace .......... Gas fired
Large dressing closet
Sales price .......... $10,400.00

In comparing the two houses it is apparent that the sales price of the present home is only 53 per cent greater than the 1941 home. In addition, the present house has 75 square feet more floor area. In 1941 the FHA and township required a 5,000 foot minimum lot area. At present 7,500 square feet are required. In 41 FHA, borough and county, allowed street grades up to 20 per cent and required 40 feet for dedicated streets. At present the same government institutions now have reduced grades to 15 per cent and have increased street dedications to 50 feet. In addition the borough in 41 approved streets that were paved with asphalt to a width of 20 feet with no curb, while at present the Township requires streets paved to a width of 25 feet with rolled concrete curbs and asphalt top roads. Then there is the comparison of a coal furnace as against a gas-fired with thermostat control. The improvements set forth add an estimated $700 to the present home. Deducting these improvements leaves a basic cost of $6,505 for the '41 house. These figures indicate that the present house as compared to the '41 house is up 49 per cent.

**THREE houses spring from a basic plan which is similar except for position of the stair. One stair is placed at centre, others at rear.**
The operations of one of the biggest builders and developers in the Los Angeles area are marked by the use wherever possible of power tools and equipment—from a heavyweight earth-moving machine for the original grading to power sanders for finishing interior trim.

The construction firm, Valco Inc., of North Hollywood, Calif., is headed by Earl L. White who has been building in the San Fernando Valley since 1915. Since starting in the area by subdividing his own ranch, White has developed Magnolia Park with more than 1,000 homes, has built more than 800 in North Hollywood Village and recently completed a 608 project with 501 apartments. His latest development, Woodman Square, will contain 500 two- and three-bedroom homes.

The building end of the firm’s business is handled by White’s two sons, with “Perk” White devoting his time to commercial work and Loy L. White in charge of residential construction. Their general superintendent is Leo Bennett. In a sustained program to increase efficiency they have built an organization which combines high specialization by work crews with their wide use of mechanized equipment.

The Woodman Square project is being directed by Loy White and W. J. Lyberger, field superintendent. The original grading was done by J. A. Thompson and Sons with a big “Terra Cobra” made by the Woodbridge Manufacturing Co. of Sunnyvale, Calif. The machine holds 14 cubic yards of dirt and travels to the work site on its own wheels. Where the going is heavy it is usually helped by a “push-cat,” in this case an Allis-Chalmers bulldozer. The big machine does the rough work up to a point where a fine grader can take over.

Trenches are dug with a tractor-pulled machine made by a local contractor. Operated by one man, it digs trenches 18 inches deep by 12 inches wide for 14 houses in one day.

Foundations and garage slabs are made with ready-mixed concrete. A Whiteman cement floor finisher, with three trowels attached, completes finish of the garage slab in from 20 to 25 minutes. First used about two hours after the cement is poured, the machine is used again after the cement has reached a firmer set. A hand trowelling provides the finishing touch.

Lumber for each house is cut to size at the lumber yard, and assembled and strapped in order of use at site, with

Specialized work crews making wide use of mechanical equipment contribute to peak efficiency of large California building firm

From Excavation to

STANLEY drill is used for boring of holes in mudsills

WHEELED seat for nailing makes it easy to move around

COMET table saw is used for cutting studs and headers

SPEEDMATIC saw facilitates the job of rafter-cutting

SKILSAW is available for framing operations on project

PIPE-THREADING is done on site with Beaver Threader

mudsills on top and roof sheathing on bottom. Studs and headers are cut by a Comet table saw, mounted on wheels, which is taken from one pile to another. After the material is cut it is placed as close as possible to where carpenters are working.

Rafters are cut and notched with a Speedmatic hand saw. The cutter places several rafters on saw horses, makes his plum cuts, and then cuts the notches separately, these having previously been marked with a templet.

The various carpentry operations are performed by specialized crews. These crews do the same work every day and require little supervision, each being thoroughly trained to time their individual tasks to keep the over-all program running smoothly.

All framing is done with the aid of power saws; the only place where an ordinary hand saw is used is in cutting the rafters just before applying the fascia boards.

Several brands of power saws are owned by the company, Field Superintendent Lyberger said, including Skill-saws, Comets, Wappets and Speedmatics. They are given a thorough inspection before being stored overnight in a garage and, if out-of-order in the slightest degree, repaired immediately. To promote better maintenance, craftsmen
Interior Trim with Power Tools

PIPE is cut on job with a Pacific Service pipe cutter

R. L. CARTER jointer used for smoothing rafter tails

PORTER-CABLE sander takes care of finish work on door

DUOFAST stapler attaches insulation to window trume

WHITEMAN cement floor finisher used on garage slab

BRANDED PRODUCTS USED: Transite fibre pipe, JOHNSTON-MANVILLE; service panel, GENERAL SWITCH CORP.; Puntovan window glass, PITTSBURGH PLATE GLASS CO.; asphalt tile, ARMSTRONG CORK CO.; asphalt shingles and Backlath plaster board, UNITED STATES GYPSUM CO.; American Standard plumbing fixtures, AMERICAN RADIATOR and STANDARD SANITARY CORP.; Coromado bathroom accessories, HALL-MACK CO.; paints, OLD COLONY PAINT and CHEMICAL CO.; building paper, SISALKRAFT CO.

are assigned particular tools which they use continuously.

Lyberger figures that a power saw pays for itself within a year. As for safety, he says that this is no problem if the men are properly trained in use of the tools.

Plumbing trees are also prefabricated in a shop set up on the site. The pipe comes in regular 21-foot lengths, is cut to size by a Pacific Saw Service pipe cutter, threaded with a Beaver threader and assembled on jigs. Wardrobe closets are also prefabricated.

Five floor plans and 26 elevations are used in the Wood-

(Continued on page 180)

AIR VIEW of firm’s 501-apartment project

TYPICAL floor plan used in Woodman Square development

ARTIST’S drawing of one of Woodman Square houses

MAY 1950
INTERESTING effects are obtained on both exterior and plan by split level arrangement that conforms to sloping site.

**A Four-level Modern Provincial House**

**AMERICAN BUILDER**

Blueprint House

Number 41

M. E. Thornton, Architect

This house, designed by Maurice E. Thornton, Indianapolis, Ind., architect, for his own use, represents the latest in split-level plan arrangements in his community. What appears to the eye to be a normal one and one half story house is in reality a house with four distinct levels.

The areas contained in each of the levels are as follows: First level: garage and utility room. Second level: hall, kitchen, breakfast room, living-dining room, and screened porch. Third level: three bedrooms and bath. Fourth level: one bedroom, bath and storage areas.

Thornton designed his house to conform with two important facts recently discovered in research work among home owners by the University of Illinois' Small Homes Council. That is that women do not like to sleep in bedrooms located on the ground floor. In conflict with this feeling is the fact, also found, that neither men nor women like to climb stairs. Thornton's solution was to provide a half flight to each of the levels, thus reducing the stair climbing and eliminating ground floor sleeping.

Luxury accommodations are provided in every room of this house. The 15 x 25 foot combination living-dining room with two picture windows, fireplace, bookcases and adjoining screened porch overlooking the rear garden is a model.

(Continued on page 95)
PARTIAL view of large combination living-dining room looking toward fireplace and built-in bookcases. Light trough on ceiling over fireplace becomes an extension of cup member of bookcases. Hi-hat spotlights are provided in ceiling in front of bookcases.

VIEW toward exterior wall of kitchen with Formica counter top and built-in sink. Lazy-Susan revolving shelves in corner cabinet with compartment directly under to house Missmaster. Cooking tools and condiment shelves placed over range with all equipment concealed. Tube lighting concealed under upper wall cabinets. Strip lighting is provided over counter.

VIEW looking up the second flight of stairs to third level. Ornamental swinging doors in hall provide privacy for bedrooms and bath.

BELOW view of kitchen looking toward breakfast room. Divider cabinets above counter open both ways. Tube lighting recessed into bottom of upper cabinet. Cabinets below counter contain sliding towel racks, high bread drawer, etc. All shelves in base cabinets slide out. Plug-in strip lighting is under cabinets.

(Continued from page 90)

of convenience. The kitchen is provided with a separate breakfast area and with ample space for all equipment. The four bedrooms are of generous size with sufficient closet space for each. Walls of both bathrooms are faced with Carrara glass in distinctive colors to an average height of five feet. Illumination consists of flush, spot, concealed and direct light fixtures with wall plugs and telephone outlets throughout. Strips of electrical outlets are provided along the kitchen walls for plug-ins for equipment. A large ventilating fan, located on the ceiling of the fourth level, draws air up through the entire house. Storage wall cabinets separate bedrooms one and two, and one wall of bedroom three. All utilities for heating and laundering are located in a large utility room on the first level. This includes a water heater, incinerator, and gas-fired forced air furnace.

The exterior of the house is finished in variegated shades of tan pressed brick with vertical batten ed siding above, in natural finish. Window frames are double hung aluminum with Thermopane glass in the picture windows. Walls and ceilings are completely insulated with four inches of Rockwool.

This house was built by Paul R. Leach of the Development and Construction Corporation for $25,000.
**Facts about Modular Co-ordination**

One of the fundamental technical approaches to the accomplishment of cost reduction in building is through modular co-ordination, the standardization of materials on the basis of measurement.

If all building materials were made to standard sizes which are multiples of a certain number of inches, and if all architects used these standards in developing their plans, then there would be no waste of material at all, theoretically at any rate.

The idea of modular co-ordination as a method of cutting construction waste was first launched by Frederick T. Heath in 1925. It gained momentum with the development of the 4-inch modular concept by Albert F. Bemis in his third volume of "Rational Design," published in 1936, and got into full swing with the organization of Project A-62 of the American Standards Association in 1939.

Study committees representing all branches of the building industry, including architects, builders, manufacturers, agreed after a thorough analysis that the 4-inch module was the most convenient basis for standardization of building products. This size was selected for the following reasons:

1. It is large enough for manufacturers to reduce the number of stock sizes and still satisfy consumer demand.
2. It is small enough for ample freedom in architectural design and for flexibility in equipment layout.
3. It coincides with the dimensions of a great many building materials already standardized and is applicable to present construction practices.
4. It is a unit measurement with which architects, builders, masons, and carpenters are already familiar.
5. It approximates 10 centimeters (3.9 inches), the basis proposed by metric system countries working on the same problem.
6. Standardization of houses is prevented, since the 4-inch unit is small enough to permit entire freedom as far as design is concerned.

A number of building material manufacturers have already switched to making their products in the new size. Others, going into production of new materials, have adopted the 4-inch modular basis from the start, with the result that the idea is gradually becoming a movement.

**Data and drawings through courtesy of Housing and Home Finance Agency, Washington, D.C.**
MOST building materials require a certain joint thickness. Manufacturers make their products smaller by amount of joint required for assembly, thus keeping dimensions within stipulated multiples of 4 inches.

UNCOORDINATED window and masonry necessitate extra cost of cutting bricks.

MODULAR window, masonry need no cutting.

SOME construction practices are already on 4-inch modular basis. Top: bat and blanket insulation between studs spaced 16 inches O.C. Center: 16x8-foot plasterboards fit 16- or 24-inch stud spacing. Below: 4x8 wallboard sheets fit 16x14-inch stud spacing.

SINCE lumber comes in standard lengths, a well-coordinated house design can take advantage of these standard sizes to use them with a minimum amount of cutting.

ARCHITECT'S design is on basis of 4-inch module. Grid dimensions "X" (left) are multiples of 4 inches, in example (right), 48 inches.
How to Frame for a Sliding Door

The job of framing a 1\(\frac{3}{4}\) -inch-thick sliding door into a 5\(\frac{1}{4}\) -inch-thick interior partition will get a mechanic into trouble if he is not cautious. The studs at the recess for the door will of necessity be of 1\(\frac{3}{4}\) -inch-thick stock. This means that the danger of these members warping into the door is present. If spacer blocks are cut between these studs before the partition is lathed and plastered, with a light wire secured to each of the spacer blocks for easy later removal, this danger will be overcome. Care should be taken that the spacer blocks are left in place until the plaster is thoroughly set and dry.—Submitted by Raymond R. Neal, Phoenix, Ariz.

How to Remove Interior Trim

If inside trim is to be re-used on remodeling jobs, do not use a wrecking bar. Remove trim by using a \(\frac{5}{8}\) -inch pin punch. Use pin punch like a nail set, and drive finishing nails clear through trim. This does not split trim.—Submitted by W. A. Woodard, Volga, So. Dak.

How to Mark Trim

When marking trim or cabinet work a fine line is sometimes required. This can be obtained by replacing the lead in an automatic pencil with a darning needle. When not in use the point can be retracted in the same manner as lead.—Submitted by Albert Keebler, Ryan, Iowa.

No. G - 7 . . . Store Interiors

In previous issues the detail plate has covered the construction and design of store fronts of both new and remodeled structures. In this month's detail plate (opposite page), the interest is centered on the design and construction of a combination bag and hosiery department in the interior of a modern shoe store. This department is an integral part of the store fixture arrangement, and yet it is an individual and distinctive sales unit placed toward the front of the store.

Bags which are a good tie-in item with shoes are shown prominently displayed on plate glass shelves in the 5 foot 6 inch high open case in back of counter. The lighting for the bags is provided by vertical fluorescent light strips placed in front of the vertical division bars of case.

The wrapping counter sides and front are covered with Marbelia wallpaper in shades of black, aqua and char-
AMERICAN BUILDER'S STORE FRONT DETAILS

N° 67 · STORE INTERIORS

Marilyn Shoes
N.Y.C.

Plan.

Front Elevation.

Section.

End Elevation.
How to Lay Out an Arch

HOW to determine the radius of an arch when the span and rise are given.
1. Multiply one half of the span of arch by itself—15 inches by 15 inches equal 225 inches.
2. Divide the above sum by the given rise, 225 inches divided by 8 inches equal 28½ inches.
3. To the sum of No. 2 add the given rise, 28½ inches plus 8 inches equal 36½ inches.
4. Divide the sum of No. 3 by two, 36½ inches divided by two equal 18½ inchs which is the radius required to strike this arch.—Submitted by James Hill, Guelph, Ont., Can.

How to Prevent Hammer Marks on Finished Trim

TO PREVENT hammer marks from appearing on finished trim from hammer marks when driving finishing nails into casings take a ¾-inch-thick scrap piece of plywood 1½ inches wide by 3 inches long to act as a guide. Bore a ¾-inch diameter hole ¾ inches from each end so plywood can be placed over nail while driving.—Submitted by Albert Keefer, Ryan, Iowa.

How to Sand Curved Surfaces Quickly

THE QUICKEST way to sand curved or irregular wood surfaces is with an electric drill and a discarded awl. Wrap a 6-inch-square piece of emery cloth tightly around the handle of awl and hold it in place by wrapping wire around handle. An inch or two of the awl point is cut off so it can be held more securely in the drill chuck. In use start the drill and tilt from side to side while applying pressure at the same time. The emery cloth can be quickly replaced.—Submitted by Herbert E. Fey, New Braunfels, Texas.

How to Make a Caulking Gun Extension

IN CAULKING around portions of the exterior of a house there are places that are difficult to reach with the point of the gun. In such cases an extension may be made from a section of small rubber hose which is of suitable size to slip over the metal point of gun. The joint of the rubber extension may be cut off at the same angle as the metal point of gun.—Submitted by Arthur N. Nelson, Kansas City, Mo.

No. D-66 . . . Details of Open Carport

WHERE climate conditions permit, an open carport offers an economical solution to the problem of car protection. It also can be classified as a multiple use area during the day when the carport is available for outdoor recreation for both children and adults.

A study of the detail plate on opposite page will indicate that a feature of this type can be made integral with and a complement to the design of the house. A battery of storage units which extend from floor to sill of window on adjoining wall of house forms one wall that protects the carport area during inclement weather. Cast iron columns extend through storage units to floor to support ceiling joists. The opposite side is entirely open, joists being supported by a double wood beam which in turn is supported by a battery of four cast iron columns embellished with brackets supporting flower pots. A pleasing arrangement is the extension of carport roof to provide a sheltered walk to front entrance door. The soffit of this extension is finished with plywood while the ceiling joists of carport are left exposed and painted a deep contrasting color.

A concrete base and floor are provided for the storage units and floor to front entrance. Balance of the floor of carport is gravel. The finished surface material of storage units and an adjoining wall of house are of 4-inch M&B vertical boards. This and other methods of carport arrangements have been successfully used by Edward B. Hawkins, designer and builder of a development of 35 houses in Denver, Colo.
Are Power Tools Profitable On Scattered Job Locations?

An emphatic "yes" is voted by members of this firm who specialize in quality-built homes and take pride in their work.

POWER sander, above, is well taken care of in the hands of Henry Fredericks, veteran craftsman with Mason Construction Co. This firm finds that one power band saw serves from four to eight man hours per day, and that efficiency of power tools depends largely on how well they are used and cared for.

FLOOR PLAN

TWO-BEDROOM homes, conventionally built by Maxon company, sell for $11,000 in Barrington, Ill.
WHETHER you build several homes in one block, or one house in every four—power tools can save money.

This is proved in the experience of the Maxon Construction Co., Barrington, Ill. Of 41 homes completed last year (25 for sale, 15 on contract), most were on widely separated lots, which meant transporting of tools and equipment from one job to the other. This firm emphasizes quality construction, and conventional building methods throughout. But the use of power hand saws, a table saw, an impact hammer and other power tools and equipment is profitable—though no prefabrication methods are employed, and little work is done in a shop. The tools, the firm says, make profits through their own productivity, and because they are handled properly.

A power hand saw, for instance, can average a savings of from four to eight man hours per day. A comparative savings is made through the use of other power tools.

How power tools save time and make money, says D. C. Maxon, head of the firm, depends largely on the men who use them, and ultimately on the organization of the building firm itself. Maxon employs more foremen in the field than usual, usually one in charge of each phase of the operation as well as one general foreman who goes around on the job. He carefully screens employees before they are hired, and believes in delegating authority. Through this policy he has steadily built up a crew of workmen who take pride in their work and the tools they work with. Any foreman on the job is capable of handling all the construction details of the house he is assigned to. Five carpenters usually work together as a crew, and one of the five uses a power hand saw to do all the cutting and layout work necessary for the other four. On smaller jobs, two men work together with one handling a power hand saw.

Storage of tools is important to Maxon. An office, recently completed, has provisions in the rear for orderly storage. Bins, plainly marked, are built along one complete side of a large room used as a shop. The office is one of the most attractive in the immediate area.

In homes built to sell, Maxon uses about 15 different floor plans and about 45 different elevations. The designs are re-used, but always in different neighborhoods to avoid monotony of design. Working with D. C. Maxon is his brother, Norman, an architect, who also estimates all jobs. The general superintendent is Andrew Bjornberg, and field co-ordinator is George Kinimonth.
DURING 1968 — one power shovel was used principally for trenching and the second was used almost exclusively for basement excavating on the Timely project of 500 houses.

A HEAVY crawler-type tractor pulling a dirt carrier moves on tract to start work.

ONE of the builder-owned and operated power shovels starts the first basement.

WITH excavating and utility installation work under way, trucks haul dirt away.

OWN Your Own Equipment

Is the advice of a builder whose accurate cost and progress records over a period of months show faster job operations.

A 50 per cent saving in excavating, dirt moving and project costs because he owns and operates his own power shovels and bulldozers instead of subcontracting the work is claimed by Stephen Dudiaik, president of Timely Homes, Inc., of Clifton, N. J. This large and well-known community development firm erected and sold 500 houses each year in 1948 and 1949. Plans call for at least 500 more this year. Price range has always been under $9,000 until this year when the range is being boosted to $10,500 with a few at $12,500.

Light power tools and equipment have always been popular with the Timely firm because of the attributes of speed and economy which they brought to each job. It was only four years ago when the first move to acquire a layout of heavy equipment was made. Since then two power shovels, two bulldozers, ten electric power generators and three mortar mixers have been added to the array of power carpentry and building tools. This year Dudiaik is planning the purchase of three pavement rollers, another bulldozer, two motor graders, a black top paver, several heavy trucks, a low-bed trailer, a cement finishing machine and a water pump.

Dudiaik manages his power shovels so that he is able to liquidate the cost in 12 to 18 months. To do this the machines must be busy practically all of the time. In the last year the two shovels operated by Timely were on the job consistently with one digging basements and the other digging trenches, curbs, and similar work. One 5½-yard shovel was used to dig an average of four 24 x 30-foot basements every day. Some weeks it was...
In this picture of the Timely Homes Maple Valley project, a power shovel, bulldozer, building materials truck and tool truck can be seen in use at some time.

Although Timely Homes sublet all pavement work up until 1950, equipment shown here working in the project last fall was on the list for purchase by this builder so it would be on hand for use in completing 500 or more homes in 1950.

The size of the Timely operation makes the use of the heavy dirt-moving equipment a profitable undertaking. Questioned as to what he considered the minimum volume a builder should have to operate dirt-moving equipment—a bulldozer, for example—Dudliak expressed the belief that any home builder who erects 100 or more average houses a year should have at least one bulldozer of his own on the job.

He feels that electrical generators are much more valuable as time and money savers than most builders realize. Any builder erecting 50 or more houses a year should have at least one generator, according to Dudliak. A generator was one of the first pieces of heavy power equipment which the Dudliak firm purchased four years ago. Experience since that time has convinced Timely that they are essential because wherever they work now they use electrically-powered tools and so must have power. In most instances when they first arrive on the job, anxious to get started, there is no power line to tap. That is when a generator is wheeled in and work starts under electrical power. If this cannot be done, all the power tools cannot be used to maximum capacity.

The firm now operates ten electrical power generators.

This spring Dudliak established his own ceramic tile application firm and equipped the crews with power tools for cutting and shaping the tile. This setup was inaugurated so that he could have complete control of the tile setters and have them on his jobs when they are needed.

A woodworking shop where framing is precut and some assembly work done is maintained on the site. Except for the extensive precutting of house parts, all the work is conventional on-site construction. About 200 men are employed with two superintendents responsible for production on schedule.

The houses are frame with full basements in two and three-bedroom models. The model which was built in volume last year sold for $8,990 on a 50 x 100-foot lot, without a garage. Heat is supplied by a forced warm air, oil-fired unit.

This year's two-bedroom model is larger and designed more along ranch-type lines. The price is $10,500.
STEPHEN DUDIAK, president of Timely Homes, considers these generators some of the most useful power units he has on the job. At present Timely operates 10 generators, varying in capacity from 2,000 to 10,000 watts. They are brought on each job to permit use of electrically-powered tools as soon as possible on lots varying from 60 x 110 to 75 x 110 feet. The three bedroom model is priced at $17,500 on the same lots, and includes a garage. Heat for these units is forced warm air, oil-fired. A gas kitchen range is also included in the sale price of this year's models. Floors are oak throughout except in the kitchen where linoleum is used and in the bathroom where floors and walls are tiled.

Windows are metal casements. In the first models erected this year the large picture window in the living room was 6 feet high and 9 feet long, made up of nine 24 x 36 inch units. The floor-to-ceiling windows in the front of the house drew so much criticism from prospective purchasers that after several months the three lower window units were eliminated to make the over-all size about 4 feet high by 9 feet long.

Interior walls are plastered over gypsum lath. Trim is colonial and doors are the slab type. All units are fully insulated throughout.

BRANDED PRODUCTS USED IN TIMELY HOMES

- American Radiator & Standard Sanitary Corp. plumbing fixtures
- Briggs Manufacturing Co. plumbing fixtures
- Cedarwell siding shingles
- Gilmore Brothers Co. cellulose insulation
- Lighttimer Co. lighting fixtures
- Kohler plumbing fixtures
- Reading Hardware Corp. hardware
- Rex automatic hot water heater
- De-Way garage doors
- Simpson windows
- Superior oil-fired forced warm air furnaces
- Truscraft asphalt shingles
- Thatcher oil-fired forced warm air furnaces
- Victor kitchen ventilating fans
- Youngstown kitchen cabinets

THREE bench saws and 20 power band saws are operated by this firm. Although the houses are conventional frame construction, most of the cutting is done in an on-site woodworking shop from where precut units are hauled to foundations for assembly.

TIMELY operates two units like this. One of them is 1/4-yard and the other 1/4-yard.
THIS is the popular $8,900 model which was built almost exclusively last year by Timely Homes. These houses, designed by Stanley A. Leek, Dumont, N. J., had ten different front elevations which with color changes, provided plenty of variation.

RENDERING and floor plan of the new $10,500 model which will constitute the bulk of the 1950 effort for Timely Homes.

There are five different elevations and roof arrangements to give variety in appearance. Rudolph L. Novak, is architect.

PUTTING the roof on one of the $12,500 ranch-type models which includes a garage. This house was also designed by Novak. Timely Homes at present plans the construction of only a few of these in 1950.
Builders Beat Terrain and

To successfully bring the economies of volume medium-priced home construction into a market which has been traditionally high priced and necessarily keyed to high income buyers is an achievement of no small proportions being demonstrated in the Huntley Estates project in Eastchester, N.Y. In the face of high land development costs along with rigid code and zoning regulations, Edward J. Tobin and Mac Wilson are currently engaged in building a community of about 275 homes in the $12,500 to $16,250 class on the former Hickory Country Club golf course in Westchester County.

One of the biggest factors in the high cost of home building in the Westchester area is the rough land. Top soil is heavy clay underlaid with ledges of rock running from a few inches to many feet in thickness. In addition to this, underground water near the surface is always a hazard to building. Part of the plan of Tobin and Wilson is to eliminate all unnecessary costs and to hold others to the minimum without sacrificing quality. In conformity with that policy they decided to erect only basementless houses, thus saving the cost of expensive excavations.

When work was started at Huntley Estates late last fall, the houses were set on concrete slabs with circulating hot water to provide a combination of perimeter radiant and recessed convector heat. The copper piping to convectors is laid in each slab around the perimeter to heat the outside edges of the floor. In these houses hardwood flooring is laid on screeds set in mastic on the concrete floors. The slabs are built up with six inches of gravel, a one-inch layer of concrete, two layers of felt, mopped with tar, rigid insulation around the perimeter underneath for two feet and vertically against the foundation. The copper heating pipes are laid above this and then the finish four-inch reinforced slab is poured.

Because of the impracticability of laying concrete slabs on wet frozen ground, the system was abandoned during the winter months. Instead, footings for a regular foundation, without basement but with a 30 to 36-inch crawl space were adopted so work could proceed without serious interruptions. Conventional wood floor joists, with subflooring and a finish floor of hardwood or asphalt tile over plywood are used. The hot water heating pipes from the furnace.
To bring the economy of volume medium-priced home construction to a market geared to high costs and prices involved solving many knotty problems in preparing difficult terrain to meet rigid code restrictions.

Weather

to the convectors are run around the perimeter of the house under the floor. This plan still retains some of the features of the perimeter radiant system which was used in the slabs.

The ground under the crawl spaces is being sealed with two inches of black top. Directly under the wood floor there are 4 inches of mineral wool insulation with a processed paper moisture barrier under that.

Despite the decision to build only basementless houses, the excavation and land preparation costs in this tract are running excessively high. When there were about 75 houses finished or under construction, more than $200,000 had been spent on excavating, rock removal and earth hauling on the entire project. One stretch of street about 150 feet long on a side hill was so heavily loaded with solid rock that before it had all been removed and the street graded ready for finishing a total of $8,000 had been spent. Tobin has figured that each lot in this development will average about $2,600 in cost, including $800 original land cost, plus the following: storm and sanitary sewer; sewer laterals (no home can be erected in this area unless sewers are installed); cast iron pipe; grading
LAYOUT of 5/4-inch copper hot water pipes laid around perimeter under the floor so that outside edge of floor is heated while pipes are carrying water to recessed convectors.

THE COMPACT Janitrol gas-fired hot water boilers are placed in small closets adjacent to the kitchens where they are out of the way but still easily accessible and finishing roadway: installation of dry wells (roof runoff water cannot be drained on the ground or into sanitary sewers); grading the lots; excavating and back filling; removal of excess trees; water and gas trenching; finishing roadway and installing curbs. Lots run in size from 50 x 100 to 82 x 100 feet.

There are five different houses being built in the development. The two-bedroom, one-and-one-half bath model priced at $16,240. There are five model houses open for inspection of prospective purchasers. There is a good variety of exterior finishes used including wood siding shingles, asbestos cement siding shingles, bevel siding, brick and stone veneers. Asphalt shingles are used on the roofs.

Interior walls are finished with the gypsum board dry wall method and are papered. A washable wall covering is standard in the kitchens and on bathroom walls above the ceramic tile wainscoting. Glazed ceramic tile is also used on the bathroom floors. A plus feature in bathrooms is the installation of two small wall chests instead of a single large one. This gives the user two mirrors which can be swung in combination to various positions to obtain different views.

Linoleum is standard on kitchen floors. Counter tops are Formica. A ventilating fan, built-in upholstered breakfast nook seats and a table with Formica top are included in all houses. Each kitchen is fully equipped with an eight-foot electric refrigerator, a gas range and an automatic laundry. Purchasers have their choice of colored kitchen cabinets, bathroom tile and wallpaper. Lightolier's Lightronic controlled lighting, which gives the owner a choice of various degrees of lighting brightness, is a feature which is popular with home purchasers at Huntley Estates.

Heated water for the forced circulating convector system, as well as the water necessary for bath and laundry requirements, is supplied by Janitrol Triple Service Heat Generators. These gas-fired units were selected by Tobin and Welson for all houses in the project and were purchased on a single contract. This method of buying is responsible for many of the savings represented in the prices of these houses.

In all models, except the two-story, the attic area is unfinished. A built-in stairway, subflooring, stubbed heating and plumbing pipes, electrical wiring and plenty of windows make it easy and economical for the purchaser to convert the unfinished attic into additional living quarters. The
DETAIL of the floor slab and foundation wall. Four inches of mineral wool insulation and a processed paper moisture barrier are placed under the floor. The ground under the crawl space is sealed with two inches of blacktop.

upstairs, or unfinished attic areas in these story-and-a-half houses, are unusually spacious because there is a building code in the municipality which specifies that each single-family residence must measure at least 22 feet from the first floor level to the top of the ridge. This makes the pitch of each roof very steep.

Sale prices of the houses include a hard-surfaced driveway when there is a garage. Basic shrubbery is also planted by the builders.

BRANDED PRODUCTS USED IN HUNTLERY ESTATES HOUSES

Armstrong linoleum
Bell & Gossett circulating water pumps
Cedarock siding shingle panels
Chase copper piping for plumbing and heating
Cork Corp. dinette sets including tables
Flint & Iron asphalt shingles and asbestos siding shingles
Formica counter tops
General Electric B-cubic foot refrigerators
Imperial wallpaper
Janszeit gas-fired hot water boilers
Kamata asbestos tile
Kenmore wallpaper
Lightoller lighting fixtures
Lockport cotton insulation
Master Woodworker kitchen cabinets
Minneapolis Honeywell furnace controls
Revere copper piping for plumbing and heating
Richmond Radiator plumbing fixtures
Royal Base gas ranges
S Inches wallpaper
Schlage hardware
Tagco hardware
Unique wall balances
USG asphalt shingles and gypsum board
United Metal Co. washers and bathroom cabinets
Universal converters
Whirlpool automatic laundries

TYPICAL kitchen showing range, refrigerator and upholstered breakfast nook seats with Formica-topped table which are standard equipment in these houses.

TWO-STORY, three-bedroom house with bath and a half in Huntley Estates, priced at $16,240, on lots varying from 50x100 to 65x100 feet. The price includes the basic shrubbery shown and a hard-surfaced driveway. Melvin E. Keesler is the architect.

MAY 1950
Prize Winners — For Less Than $9,000

First place in an architectural competition open to Michigan home builders is awarded to three-bedroom homes that have ample storage and an attractive price tag.

Most attention at Michigan builders competition was given to this three-bedroom Robertson home. Floor plan, below.

First Floor Plan

Four floor plans with three elevations for each are used in Robertson project.

AMERICAN BUILDER
Selected Homes
HOMES offered in the 105-house Woodward Hills development, Royal Oak, Mich., won first prize in an architectural competition sponsored by the Michigan Association of Home Builders for their builder members. The winning homes have three bedrooms and radiant heat, and are priced at $7,950 to $8,400, without lot.

The basic plan in the project has a center entry hall leading to the living and dining rooms at the rear. The living room has large picture windows and a French door opening out to a future rear terrace and garden. Adequate closet space is provided, and additional storage space is available in a floored attic reached by a disappearing stairway. A corner fireplace is located at the wall of the living and dining rooms.

Robertson Brothers, the Royal Oak builders who developed the project, enclose a home in two days, then pour a 4-inch concrete slab floor in which 3/8-inch copper pipes for radiant heat are imbedded 12 inches O.C. A trench is dug to frost line, then an 8-inch foundation wall is poured to within eight inches of finished grade level. One 8-inch concrete block is placed on top of the foundation wall to bring it up to grade level, then an L-shaped concrete block (designed by Covert Robertson, Jr., senior member of the firm) is placed above that. This block is 8 x 8 inches, with 4 inches taken out of one corner to provide a base for the plate and support for the edge of the floor slab. After the foundation is poured and concrete blocks laid, conventionally framed exterior walls are built, and rough framing proceeds until the house is under roof.

To conserve floor space, a Van Packer chimney is used in several of the homes. The radiant heating system installed was designed by the Robertson Brothers, who use panel lines of identical length. With their system, they say, heat loss and resulting temperature drop in each line is identical. Oil and gas fired automatic York Shipley boilers, manufactured by York Shipley, Inc., are used.
HOW power equipment saves time
and money for the lumber dealer was graphically demonstrated recently in Chicago at the Edward Hines Lumber Company yards. A program sponsored by the Hines company permitted more than 100 lumber dealer guests to see firsthand some of the most advanced methods of material handling. Though the Hines yard is one of the largest in the country, handling equipment demonstrated is adaptable to both large and small yards, and visiting dealers felt their time was well spent at the program.

In the first part of the demonstration, dealers saw a modern lift truck at work, moving lumber inside a Hines shed built to provide ample room for the free movement of lift and straddle trucks. An ideal shed for this power equipment, manufacturers say, is one with roof trusses where four walls support the roof and no intermediate posts of any kind obstruct the floor level. In the Hines shed, dealers saw a lift truck move at rapid speed, lifting unit loads of lumber, carrying it to a destination, and deftly placing it on top of a high lumber pile or on the ground as though it weighed no more than a pound. The Hines company stacks the lumber (see photographs) so that a

1. LUMBER at Hines yard in Chicago is stacked so that ends are staggered, enabling lift truck to raise one end of any number of boards required. Rose lift is shown in first stage of lifting operation.

2. AFTER one end is raised, a 2x6 is inserted to hold the lumber up until lift truck moves around into position to insert forks under center of load. The operation requires two men and lift truck.

3. BOARDs areshift here. Entire operation takes only a few minutes. More than 100 lumber dealers watched demonstration. Illustrated here, sponsored by Hines Lumber Co., at their Chicago yard.

AMERICAN BUILDER
Demonstrates Materials Handling

Retail lumber dealers turn out en masse to see how power equipment is used to cut cost in a modern lumber yard.

A lift truck can approach a pile of lumber and take any amount desired at one time.

In the second part of the demonstration, dealers saw how high tensile steel straps are used to hold lumber units together, making it easy for one man, by means of truck transport, to move them around a lumber yard and to unload them in one single unit instead of in separate unmanageable pieces. It was shown how boards can be unloaded at their destination without loss of time or lumber breakage; how bundles prepared in the lumber yard provide advantages for the customer and will not be pinched while idle on his property, and how the bundles will not be dangerous to curious children exploring new buildings.

How a lift truck can quickly unload plywood and wall material from a boxcar opening was demonstrated to dealers in the third part of the program. The bundled plywood, held firmly together with steel straps, was set in the boxcar opening on bucks (4 x 4's) to provide a space for forks of the truck to be inserted.

Flattened loading and unloading was demonstrated next, again with one man driving a lift truck, accomplishing many times more work in a few minutes time than several men could do in a full day. Philip Creden, advertising manager of Hines, in charge of the program, said he is not difficult with his firm's power equipment to unload a flatcar in approximately twelve minutes.

Interest in the last part of the program in the Hines mill centered around a power saw equipped with a conveyor table and safety power feed used for self-feeding of material through the saw. In the demonstration, the saw ripped 2 x 12's, 16 feet long, dadoed the same material, and with shaper cutters attached, the saw did shaping.

Materials handling equipment demonstrated at the Hines yard included Ross carrier and lift trucks, Ross Carrier Co.; Hyster lift trucks, Hyster Co.; Gerrard steel strapping, Gerrard Steel Strapping Co.; Acme steel strapping, Acme Steel Co.; Signode steel strapping, Signode Steel Strapping Co., DeWalt Model GEV saw, DeWalt, Inc.
Mechanized Operations

Power equipment has made possible the steady growth and expanding business of this mill and yard where "the customer has been king" — since 1904

FAITHFUL adherence to a slogan and a policy over a period of two generations has steadily built the business of the Crown City Lumber & Mill Co., Pasadena, Calif., until today it covers five acres, sprawling out in all directions from the original site established in 1904 by the father of the present owner. The slogan, "The Customer Is King," formulated into a policy and instilled into the minds of all employees, is responsible for this growth.

William L. Leishman founded the business 46 years ago in a small plant on ground where one of the present buildings now stands. Since that time the organization has increased many times and the physical facilities have been enlarged accordingly. There came a time when space adjacent to the first building was not available and space on the other side of Green Street had to be used; this took care of the situation for awhile but soon it was necessary to have more room and the firm had to cross Vernon ave. As a result the plant is in three sections as shown on the diagram. The building which houses the heavy equipment such as the resaw and the gang rip saw and the moulding shed, is a full block and a half from the siding where cars are unloaded. The storage plant across Vernon is about the same distance.

Under these conditions it was natural for the company to acquire mechanized equipment for handling lumber and they now use two Gerlinger Carriers and a Gerlinger Lift, all of which dart in and out of the various sheds and yards with bewildering speed. The big Gerlinger, 30,000 pound capacity, handles lumber in the yards while the smaller carrier with a 14,000 pound capacity can get into the mills and the sheds. All timbers, rough lumber and some dimension lumber are stored in the open adjacent to the siding, some to be air-dried. They are stacked in 20 foot piles by the Gerlinger lift. The lift is, of course, also used for unloading gondola cars and for stacking wallboard and other flat items in the dry shed, as well as for other loading and unloading operations.

The small Gerlinger is the real work horse because it is used to deliver material to the mills and to pick up loads of outgoing lumber to take it to the shipping room. Whenever orders are made up in any of the storage points the material is placed on carrier blocks with one of the top boards marked to indicate whether the material is to go to a mill for processing or to the shipping room for loading on a truck. The small carrier picks up these loads as fast as the operator can get around to them.

The company operates three roller bed trucks and two pick-up trucks for delivery of lighter items. The pick-up trucks are equipped with a metal frame which permits long lengths to be loaded with ends extending over the cab of the truck. All loads are strapped with steel bands which facilitate unloading from the roller bed trucks and which also protect the material against theft to some extent, while it is in the customer's lot awaiting use. The strapping is done with a Signode Steel Strapping Coil Box.

Although the company carries the most complete stocks of lumber of all kinds to be found in the area and does a substantial volume on staple items with contractors, industrials and the general public, perhaps the most important end of the business is the custom millwork department where a combination of expert "know-how" plus tens of thousands of dollars worth of fine machinery enable them to turn out millwork and cabinet work of unusual quality and variety. Custom pews, stairways, doors, wall panels, mouldings, cabinets, ornamental woodworking of any character is made quickly and economically in these mills. The mills are devoted entirely to custom work and no stock sizes are run except when they are part of a custom order.

Every effort is made in the mill to avoid unnecessary handling of material. Each order is hauled from machine to machine on hand trucks; even many of the machines are on wheels so that the work can be brought to the machines or the machines to the work, whichever is best for a particular order. The equipment in the main millwork plant is by far the most extensive and complete in the area and includes the following saws and other machines: De Walt Cut-Off saw; 2 Oliver Table Saws; Crescent Table Saw; 36 inch Band
Saw (names obliterated): Boice-Crane Chop Saw; Beach Jig Saw; Mattison Straight Line Ripsaw; Crescent Jointer; Porter Jointer; Famous Jointer; Greenlee Planer; Buss Planer; Greenlee Mortiser; 2 Greenlee Tenoners; Smith Planer; Crescent Sander; Berlin Drum Sander; Workage Coping Machine.

In the mill across the street where the heavy machinery is used there is a McDonough Resaw, Greenlee Planer, a gang ripsaw made by California Engineering & Machinery Works, Yaies sticker and two Berlin stickers. Stored near these last three machines are thousands of moulding knives.

With the three Gerlingers and all of the other machinery plus five trucks, maintenance is an important item and the policy of the company is to immediately repair any machine the moment it shows any sign of wear or being out of order. One of the men is a good mechanic and he does the work if possible; if not, outside help is called. Safety is also given much attention. A meeting of all superintendents and their assistants is held each month to discuss ways and means of preventing accidents. Signs posted throughout the mill read "Please Do Not Talk To Men While Working—It Might Mean Losing A Finger."

Lathrop K. Leishman, president of the company, is proud of the business philosophy established by his father and constantly strives not only to furnish materials of better quality but to find better methods of displaying and selling them. An example of this better service is found in the unique Odds and Ends Shed (see opposite page).

Located on the corner of Green street and Vernon avenue, this self-service sidewalk shop offers items of all kinds likely to be wanted by the handy homeowner, ranging from fence pickets, trellis material to pieces of plywood 4 feet by 8 feet and including doors, and screens. Each item has its price plainly marked on it. When a customer has made his selection he gets a sales slip from an attendant and takes it into the office next door to pay the bill and then puts his merchandise into his car. A parking lot behind the shed is a convenience to those who can get into it but on Saturday mornings is not nearly adequate for the crowds who patronize this service and whose cars line the street for a block in both directions.

Another somewhat similar service is available to both contractors and consumers in the storage yard across Vernon avenue where stocks of Redwood and Douglas Fir boards are carried plus a few other staple items. One corner of this yard is devoted to miscellaneous piles of lumber each with a price marked on it for the whole load.
More Power For You

IN the little town where I grew up, Tom Rhodes could saw a board in two quicker and more accurately than any other carpenter in the community. His saws were his pride and joy. He gave them even more attention than his razor. They not only were kept quite and shiny, but they were protected meticulously from all harm. The tool chest where they were kept was a joy to behold because Tom devised a method by which the teeth of the saws never touched anything other than the soft protective slots which held them in proper place.

Tom was a great man with the saw and it was a pleasure to watch him go about his job of cutting a board in two. He would first size it up with a practiced eye. Then he would pick up his square, pull a carpenter pencil out from under the brim of his cap, mark the board accurately in the proper place and then fall to with his beloved saw.

Singing Through The Knots

We used to stand and watch Tom as he sawed through the wood—wet, dry, hard, and even, the knots, which were the bane of the existence of the less experienced carpenters.

Tom could follow a sawing line as accurately as any precision machine that was ever put into a factory. When he started across the board he never stumbled, all the saw had cut its way through the entire piece. At regular intervals, he blew the sawdust in all directions with a blast of bellows-like proportions. His lung power enabled him to keep the line free of all sawdust accumulation. When he had finished with any particular saw cut, he picked up the ends of the pieces, ran his thumb along the edges, laid them down with a gleam of satisfaction in his eye.

In sharp contrast to Tom, the efficient sawyer, was Charlie Boyles who couldn’t saw a piece of hot butter in two and do much of a job of it. Charlie’s saws were rusty, they were seldom sharp. But even if he had been given the privilege of using one of Tom’s best tools, he could not have followed a line to save his neck.

Between Tom, who stood at the top of the list in efficiency, and Charlie, who never left the bottom rung of the ladder, there were many carpenters of varying degrees of efficiency in the community. Each had his rating—good, bad or indifferent.

"If you can get Tom Rhodes to build your house, you will get a good house," was the invariable verdict of home prospects. But, of course, the problem was to get Tom to do it because he always booked up so far ahead. On the other hand, Charlie Boyles was always looking for a job. And, naturally, the difference between the two was the direct result, not only of the way they kept their saws but how they used them.

Power Tools Bridge Gap

Down through the years it is interesting to observe how means have been developed by inventive minds to bridge the gap between Tom and Charlie. The end result has been that Charlie is now able to closely approach Tom when it comes to doing a good job of sawing and, of course, it was all brought about by the development of power tools. Charlie’s inability to follow a straight line has now been overcome by the gauges which are now employed in power equipment to make it impossible for him to saw a crooked line. The board is slotted onto the machine and pushed into its proper place. The whirling saw bites in at the precise spot where the cut is to be made and in the twinkling of an eye the job is done.

Charlie is entirely capable of picking up a board, putting it in place, pushing the button or pulling a lever and taking charge of the machine.

Tom, on the other hand, is entirely pleased with the fact that his employees are able to take over a part of the job that he alone could do accurately. It enables him to build more houses and to do a better job than was the case when the entire burden of accuracy rested on his shoulders alone.

It perhaps is needless to call attention to the fact that accuracy was likewise more or less difficult on the part of anyone who was called upon to saw a board in two atop a sawhorse perched somewhat precariously upon the irregularities of the ground, which invariably prevailed on the building site. Despite the fact that accuracy was absolutely essential in cutting the several thousand parts which made up the construction of a home, it should always be remembered that this accuracy was achieved under exceedingly difficult circumstances.

Neat Balancing Act

In no other industry were workmen required to handle long boards in windy weather, and to attempt to hold them properly in place across a couple of sawhorses on uneven ground. Notwithstanding such difficulties, good construction was available through such individuals as Tom Rhodes, who not only knew his saws but how to use them.

As the years went by, it became necessary to speed up production on the building site, or at least to improve the workmanship of the majority, who were not as efficient as Tom. That, of course, was a difficult problem since it meant that each and every one of the other workmen would have to do exactly what Tom had done in order to become an expert with the saw. That, naturally, was impossible because the majority simply didn’t have it in them.

The coming of power tools undoubtedly is the greatest thing that has happened to the light construction industry, and this is true of the building of a home as in the erection of a farm or the simplest sort of an agricultural building.

More Tools, More Homes

Power equipment on the building site, or anywhere else, does not necessarily mean that fewer men are employed in the light construction industry. As a matter of fact, exactly the reverse is true for the reason that when you make it easier to build a better building and do it quicker, it quite obviously means that more and more people can become the happy owners of such structures.

The scene on the building site today is something entirely different than when Tom Rhodes spent half the summer building a house. Now they go up like magic, and the best part of it is that the cuts are made with precision accuracy by practically anyone who happens to be employed on the job.

Tom Rhodes, or his counterpart, lays out the work. The rest is comparatively easy, since each and every part fits into place accurately because the cut has been made with precision machinery.

Nothing is more interesting than to ponder the widespread changes that have taken place in construction since (Continued on page 150)
These Manufacturers Produce Powered Tools and Equipment for Builders

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<thead>
<tr>
<th>Manufacturer</th>
<th>City</th>
<th>State</th>
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<tr>
<td>Aird Chainin Hng Co.</td>
<td>1150 570th St.</td>
<td>St. Paul, Minn.</td>
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<td>American Floor Surfacing Machine Co.</td>
<td>315 S. Clark St.</td>
<td>Los Angeles, Calif.</td>
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<tr>
<td>J. W. Appleby &amp; Son, Inc.</td>
<td>P.O. Box 469</td>
<td>St. Louis, Mo.</td>
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<td>Auto-Contractors Equipment Co.</td>
<td>530 Meat St.</td>
<td>Cleveland, Ohio</td>
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<td>Atlas Press Co.</td>
<td>101 W. 87th St.</td>
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<td>Azar Products</td>
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<td>Barnes Mfg. Co.</td>
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<td>Bostick Mfg. Co.</td>
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<td>Caterpillar Tractor Co.</td>
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<td>Chain Belt Co.</td>
<td>1600 W. Grace St.</td>
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<td>Chicago Die Forming Machine Co.</td>
<td>7551 W. 64th St.</td>
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Ford Motor Co., Dearborn, Mich. (Trucks)
General Electric Corp., 1353 South Ave., Chicago, Ill. (Electric motors, generators, etc.)
Gulf Oil Corp., 1000 Lefferts Ave., Brooklyn, N.Y. (Power saws)
Hampshire Engineers, 600 South Riverside Ave., Chicago, Ill. (Trucks)
Hartford Steam Boiler & Iron Works, 100 Main St., Hartford, Conn. (Steam boilers, etc.)
Hitachi-American, 200 W. Jackson Blvd., Chicago, Ill. (Machinery, etc.)
I. G. C. M. Co., 200 W. Jackson Blvd., Chicago, Ill. (Residential heat and power)
Ingersoll-Rand Co., 200 W. Jackson Blvd., Chicago, Ill. (Power saws)
J. W. Appleby & Son, Inc., P.O. Box 469, St. Louis, Mo. (Pipe bending equipment)
J. W. Appleby & Son, Inc., P.O. Box 469, St. Louis, Mo. (Pipe bending equipment)
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The design submitted herewith and the six that follow were awarded honorable mention in a competition for women architectural students sponsored by the American Builder and the Women's Division of the National Association of Home Builders. The contest problem was to design a single-family dwelling for a family in the middle income bracket with relation to living and sleeping quarters. Interesting solar treatment of south exposure: openness to prevailing breezes. This home was criticized for the position of the front entrance which causes guests to pass workroom and kitchen; for the difficulty to convert play area into bedrooms when children grow up; for lack of adequate cross ventilation in bedrooms; for allotting too much of the living room area to the fireplace; and for the front door that opens into living room.
MRS. JEANNE SCHLESINGER, UNIVERSITY OF ILLINOIS, URBANA, ILL.-

Good points: Compact plan; service position well related to dining area and family entrance; fenced in outdoor areas well placed in relation to adjoining rooms; extensive use of folding doors. Criticized for the wide separation between master bedroom and children's bedroom; because kitchen is too open towards living room; because of the costliness of the curved stone wall of living room; for insufficient space for utilities and storage areas; for failure to include a fireplace; because children's bedrooms were too cramped to accommodate inside playroom.
MARGARET E. HUDAK, CARNEGIE INSTITUTE OF TECHNOLOGY, PITTSBURGH, PA. Good points: Openness to prevailing breezes; elements of service well related; convenience of outdoor play or utility yard to children’s bedrooms.

Critiqued for inadequate storage and closet space; for somewhat forbidding appearance of street elevation; for lack of window in powder room; for use of living room as passageway; for reducing the size of boy’s and girl’s rooms to provide for adequate play area; for long corridor-like structure of bedrooms; because the main entrance to the house was rather distant from all other elements.
AMERICAN BUILDER PRIZE HOME COMPETITION

E. ELIZABETH TRAINER, UNIVERSITY OF ILLINOIS, URBANA, ILL. — Good points: Compactness of plan for house proper; consolidation of living areas into sizable open space; unique wood screen separating sleeping and dressing portion of master bedroom; splendid fenestration of south living room wall. Criticized for having only one bathroom in a potential four bedroom house; for long narrow hall in sleeping quarters; for lack of play area for small children; for the use of sliding doors on exposed living room wall; for lack of a service yard near kitchen-laundry; for having principal bedroom exposures toward side lot line.
Joy Milam, Tulane University, New Orleans, La.—Good plan.

Simple construction methods employed; use of bedroom hall as play-space; compact plan with good circulation; service units well placed; sheltering of front entrance and pleasing external appearance. Criticized for the extensive use of glass sliding doors which indicate house to be distinctly regional in planning; for inadequate utility space; for cramped kitchen area with no space available for informal dining; for the cramped dining room which allows no provision for guests; for the questionable type and size of fireplace; and for the minimum sleeping facilities provided for the children.
ANN NICHOLAS, CARNEGIE INSTITUTE OF TECHNOLOGY, PITTSBURGH, PA.

Good points: Simplicity of plan and mass; service portion well related to dining room and family entrance; unusual combination of kitchen, laundry and sewing units all confined to one room. Criticized for lack of cross ventilation in all rooms except kitchen; for separation of garage from kitchen units; for the rather flat and uninteresting appearance of street front; for the inadequacy of both the children’s bedrooms and the dining room; for the complete separation of play and service yard, making supervision of children or play impossible from the living or work area of house.

MAY 1950
NINA PENCE, COLLEGE OF ARCHITECTURE, UNIVERSITY OF MICHIGAN, ANN ARBOR, MICH.—Good points: Splendid supervision of outside play area from kitchen; use of folding partition in converting children’s bedrooms to inside play area; living room separated into group activities area; compact plan. Criticized for careless handling of service portion of living room; for lack of cross ventilation in bedrooms; for having to pass through laundry to enter kitchen; for separation of service units such as kitchen and garage; for unimposing street elevation; for lack of bulk storage and closets; and for the minimum area allotted to both the utilities and the kitchen.
Here's how we make sure Ro-Way doors will serve BETTER...LONGER!

Each door is built completely in the Ro-Way plant. Then erected by one of Ro-Way's national network of selected distributors.

Only high quality lumber is used. Personally selected by our own buyer at west coast mills.

Panels are made of 3-ply, exterior grade Douglas Fir plywood for maximum resistance to moisture.

Multiple mortises are used to assure accuracy, uniformity and good fit.

Tenons are cut on both ends in one operation for efficient construction.

BETTER BUILT

Muntins, rails and stiles are accurately squared up.

Sections are drum-sanded to a fine preliminary finish.

Ro-Way's own workmen then do the final finishing with hand sanders.

All sections are rabbeded carefully to assure weather-tight joints.

BETTER FINISHED

All mortise and tenon joints are glued and then steel doweled for strength.

Ro-Way springs are made in our own plant, and power-metered to the weight of the door on which they're used.

Special machines make Ro-Way track rollers with a double-thick tread that wears twice as long.

After all Ro-Way hardware has been fabricated, it is Parkerized and painted for extra protection against rust and streaks that spoil the looks of a door.

BETTER ALL AROUND

Ro-Way Overhead Type Doors are available for all Industrial, Commercial and Residential Installations.
Fred W. Wappat MAXAW gives builders maximum performance for a 6" saw!

The MAXAW features built-in depth adjustment (1/4 to 1 1/4") and built-in bevel adjustment 0 to 45°. Has rapid, sturdy rip fence. The MAXAW cuts to full 1 1/4" depth, cuts 1 1/4" at 45°. Even though blade is filed many times, the MAXAW cuts 2" lumber. There are no extra guides—the MAXAW is a complete electric band saw. That’s why it’s called the 6" saw with Big Saw features!

Businessmen Should Demand Economic Solvency.

Says Dr. Edwin G. Nourse

An economic policy of “slipping into deficits as a way of life” is “simply failing to face the realities,” Dr. Edwin G. Nourse, former chairman, Council of Economic Advisers, Executive Office of the President, stated in a recent speech in Detroit.

Speaking before 1200 builders at the Twenty-second Annual Banquet of the Builders Association of Metropolitan Detroit, Dr. Nourse criticized the passage of a budget this current year that promises an additional 5.5 billion-dollar deficit to be added to one of 1.8 billion incurred at the end of 1949.

“In January 1949,” Dr. Nourse said, “the President asked for a 4-billion-dollar tax increase in order to provide for modest curtailment of the debt... But then we came to the spring recession, and the President withdrew that request. I participated in that recommendation and I think it was sound under the circumstances. Four billion dollars of additional taxation would have complicated the problem of business in making adjustments in that first recession period. I think that action was all right, but the recession period gave way by August to one of very bracing advances. And what did we do? We proceeded to pass a budget for this current year, that we are now working under, which promises the country another deficit of 5.5 billion dollars.”

Such additional deficit would wipe out the savings of the inflationary postwar period, Dr. Nourse stated. “I submit that that is a situation which undermines the solvency of our economy within which you (builders) have to do business, within which businessmen have to make their investment plans, which are the basis of your construction operations. That in my judgment is a very dangerous situation.”

While one individual can do much about this situation, Dr. Nourse explained that “the expression of a sober and sound and determined public opinion can change our national financial picture.”

He concluded with an encouraging note in regards to the present attitude in Washington, where he said “there is a responsiveness at the present time such as there has not been before.” A balanced budget would force some problems into a harder position this year, “and might even give us a year or two of less active and less profitable business and somewhat more unemployment,” he stated. “But that is not too high a price to pay for assuring ourselves and the world that we have the determination and the know-how to put our affairs on a solvent basis.

“Public housekeeping isn’t basically different from company housekeeping or from family housekeeping. All prudent men operate on essentially the same principle. Business in this country has habitually gone into debt. It has pushed the country forward because it went into debt when there were special needs of expansion to be met or when there were special emergencies that had to be coped with. But when reputable business men go into debt, they do so with a financial plan which is designed to see them through. They don’t say, ‘go on spending because it is nice to have a finer office or a bigger plant than the other fellow, and be unconcerned if it leads to bankruptcy.’”

Our public housekeeping, he explained, is not at the present kept according to the principles of good business housekeeping.

Among more than 50 NAHB honor guests at the speakers table were Thomas P. Coogan, NAHB president; Frank W. Corrigan, NAHB executive vice-president; John Weinert, president, Detroit Builders Association, and Henry F. Fett, 1949 Detroit association president.
Now masonry wall paint hits a new high in protection thanks to VINYLITE Brand Resins!

A two coat system based on these amazing materials shows exceptional resistance to weather, fresh and salt water, industrial fumes, oil, grease, cleaning solutions and most other chemicals. The plastic coating can be applied to brick, concrete, concrete brick, stucco, concrete block, cinder block or asbestos siding.

It can be applied to damp basement walls or to surfaces previously painted with other materials. It does not craze, check, peel or crack when it has been properly applied, nor does it chalk. Used on homes, apartments or office buildings, this VINYLITE Resin-based paint cuts upkeep costs.

It's particularly practical for factories, smelting plants, breweries and refineries where it withstands the corrosive fumes that eat into ordinary paints. Used as a coating for swimming pools (both in color and white) it has shown excellent resistance to fresh and salt water and disinfectants. In deep basements, the use of these coatings provides dry, clean and attractive walls.

Put this remarkable new paint to work for you! Get the complete story. Write Department HY-64.

Data on "VINYLITE" Masonry Paint, courtesy The Molsanck Company, P.O. Box 1031, Cincinnati 1, Ohio.
Here's How to Beautify the Entry
with Coffman's Exquisite CLIMBING VINE DESIGN

Ornamental Iron Porch Posts
Graceful hand-wrought Coffman iron porch posts improve the looks of any house, often increasing its value tremendously. Yet these ornamental posts are quite inexpensive and are available through your builder or building supply dealer. Use Coffman’s distinctive No. 150 design for porch, terrace, or balcony. All accessories are furnished for easy installation.

Tested by Pittsburgh Testing Laboratories, careful testing under professional laboratory control gives accurate load carrying statistics, proving Coffman load carrying factors amazingly high. Corners will support 33,000 lbs., flat posts 850 lbs.

HOW TO Fit a Porch Post...

It’s Simple with Coffman’s UNIVERSAL PORCH POST

For Building or Remodeling

One stock post, Coffman’s No. 150, meets any height requirement from 6'-10½” to 8'-0”. You simply cut off legs as needed. Comes complete with fittings. This is an outstanding design suitable for building or remodeling. Look for the traditional Coffman “large drawn tips” or many ends of scroll—the mark of fine quality in ornamental iron.

Write Department AB, P. O. Box 1113, for free catalog of designs, sizes and prices.
Manufacturers of the Original
Complete Builders Line
of Hand-Wrought Ornamental Iron

How to Cut Metal Mouldings With a Hack Saw

To prevent blades from breaking when using a hack saw in cutting thin metal mouldings, bullnose trim or metal casings, proceed as follows:

Place two blades in the saw frame at the same time, one against the other, with the teeth of one blade placed in the opposite direction from the other. By this manner the upstroke of the saw cuts the metal as well as the downstroke of the saw; it also eliminates hanging.—Submitted by W. L. Dodds, Branson, Mo.

How to Prevent Roof Leaks at Gutter

When roof gutters are covered with ice encrusted snow the heat from the building causes the ice nearest the roof to melt. This water has no place to escape except between the facia and roofing boards. To prevent this lay the first roll of paper (preferably Sisalkraft) on the roof at the eaves, letting the paper extend to the bottom of the facia board. Install gutter on top of the paper, trimming excess paper below the gutter line.—Submitted by Warren J. Valentine, New York City.

How to Clean Out a Waste Pipe

Cleaning out waste pipe for tub or other fixtures may be done quickly by using the following method. Drill a hole in elbow where it connects with the soil pipe, tapping the hole for a small plug. Insert haling wire into the pipe; attach one end of wire to an electric drill. When drill is turned on the wire whips around inside of pipe cleaning out debris.—C. A. Teudhope, North Girard, Pa.
Monowall gives your customers ideas

Monowall is the kind of material that sells your customers on the idea of remodeling. When that happens, you sell not just Monowall but the whole remodeling job.

Armstrong's Monowall is a versatile material. It offers customers a practical solution to the problems of repairing old walls and ceilings at a price they can readily afford.

Because it's an easy material to work with—easy to cut, shape, nail, and cement—Monowall may give the customer ideas for other uses, too. In this kitchen, for example, Monowall was used as a facing for cabinets, cupboards, counters, and even drawers. Monowall channels and moldings were used as a decorative trim for joints and edges.

Armstrong's Monowall has a strong appeal to the housewife. Its smooth, lustrous finish is durable and easy to clean. Monowall's attractive colors are completely up to date, all styled to the latest decorating trends by Armstrong's Bureau of Interior Decoration. In all, there are 22 different color and design combinations from which to choose.

If you're not already selling Monowall, get full details and prices from your Armstrong lumber dealer or write to Armstrong Cork Company, 1605 Lincoln St., Lancaster, Pa.
Compact Design for Today's Space Saving Installation

First Choice with Leading Architects and Builders

Mueller Climatrol

The complete Mueller Climatrol line is the first choice among leading builders and architects for many reasons. First, they know this complete line gives them the heating unit that is right for any job — with any type of heat, any type of fuel. Secondly, they know that they deliver years of Mueller Climatrol's fuel-thrifty comfort — a guarantee of customer satisfaction. Finally, they deliver a heating system whose name has universal acceptance — thanks to Mueller's 93 years of leadership in the home heating industry. Write for full details. L. J. Mueller Furnace Co., 2232 W. Oklahoma Ave., Milwaukee 15, Wis.

Catalogs and HOW-TO-DO-IT INFORMATION

734—PRIZE-WINNING DESIGNS—A report on the Wood Garden-Type apartment design contest, sponsored by the Timber Engineering Co., 1319 Eighteenth St., N.W., Washington, D.C., contains the prize-winning designs that were selected from among nearly 300 entries, representing work of architects and architectural students in 34 states and Canada. Copies available from above firm.

735—PERCUSSION WELDING METHODS—"Technical Advisor, No. 12," issued by Reynolds Metals Co., 2500 So. Third St., Louisville, Ky., discloses percussion welding methods which now make it possible to flash weld aluminum tubing directly to copper, stainless steel, Monel, or other alloys without regard to the dissimilar metals in the joint.

736—NEW DECORATING IDEAS—The largest catalog ever issued by the Sloan-Blabon Corp., 295 Fifth Ave., New York 16, N.Y., is now being offered to company's dealers. Full color reproductions of entire line, including 77 new designs, new decorating ideas and suggestions for doing over kitchens, hallways, bathrooms, utility, dining, sewing and hobby rooms are included. Catalog contains 228 pages.

737—COST SAVING TOOL—How one man with 240-pound Wayer Impactor can tamp and finish 45 to 60 square feet of material per minute is told in a new bulletin issued by Wayer Impactor, Inc., 12 N. Third St., Columbus 15, Ohio.

738—"BEFORE YOU BUILD OR BUY"—is the title of an informative easy-to-read booklet offered by Dow Chemical Co., Midland, Mich., that answers three questions faced by architects, contractors and home owners: (1) Is the house built right of right materials to give it a normal life expectancy? (2) Is there reasonable assurance that, in a few years, there will be no prohibitive maintenance costs? And (3) is the house so constructed that it will bring a high resale price?

739—HOW TO MAKE YOUR OWN—double hung and casement sash, trim, including base, shoe, crown and cove mold; window stop; raised panel doors; interior paneling; stair tread nosings; lipped cupboard doors; and drawer fronts is explained in new folders issued by the Boise-Crane Co., 906 Central Ave., Toledo 6, Ohio.

740—DOUBLE HUNG WINDOW WITH FRAME AND SASH—How to install Fleetite aluminum windows in brick veneer, concrete block, frame or solid masonry construction, is shown with detail drawings in new literature available from Fleet of America, Inc., 110 Pearl St., Buffalo 2, N.Y.

741—COMPLETE LINE OF FLOOR MACHINERY—Illustrations and specifications of a complete line of floor sanders, polishers, scrubbers and other machinery are offered in literature available from Lincoln-Schlueter Floor Machinery Co., 1250 W. Van Buren St., Chicago 7, Illinois.

742—HOLLOW STEEL DOORS—Colorful 4-page bulletin describing the USF hollow steel doors and frames is offered by United Steel Fabricators, Inc., of Wooster, Ohio. Bulletin features door applications typical in six major multiple dwelling projects for which they have been recently selected.

(Continued on page 134)
NOW...

COMPLETELY INVISIBLE PANEL ATTACHMENT
PLUS ONE-TRADE APPLICATION
WITH THE BEAUTIFUL NEW Nu-Wood LOK-PANELS

It's a big forward step in dry wall finish! Predecorated Nu-Wood LOK-PANELS permit amazingly fast application—completely invisible attachment—employing only one trade! New speed, economy and beauty result from three exclusive Nu-Wood features—big, predecorated panels with factory-machined interlocking joints, the Nu-Wood Hidden Clip for invisibly attaching the panels to intermediate studs, and the Nu-Wood Clip that fastens the panels to wall framing on tongue and groove edges. Here's why Nu-Wood Lok-Panels can bring you profitable business from satisfied owners...

NO FURRING STRIPS—FASTER APPLICATION—panels applied directly to framing members, either in new construction or existing rooms. Diagram shows Nu-Wood Hidden Clip being nailed to intermediate stud.

BIG PREDECORATED PANELS—32" wide, 8' and 10' long go up quickly. Package of panels can be easily handled on the job. No paint or other surface finishes needed—no mess!

FACTORY-MACHINED INTERLOCKING JOINTS—require no further treatment on the job, eliminate "breathing." Tongue and groove joint of the Lok-Panels receives Nu-Wood reversible clip for a tight joint.

SELF-ALIGNING SURFACES—with Nu-Wood Clips, irregularities of the nailing base do not affect levelness—"float" wall treatment permits normal movement of panel and base. Surfaces stay level.

NO JOINT TREATMENTS—ONE-TRADE APPLICATION—beautiful shadow-line edge removes the need for tape, wood strips or other joint concealers. Diagram shows method of driving Lok-Panels on Hidden Clips.

COMPLETELY CONCEALED ATTACHMENT—an entirely invisible nail heads! Diagram shows Hidden Clip before and after it is em-bedded in back of Lok-Panel.

Here's the new Nu-Wood Hidden Clip that permits concealed, permanent application of Lok-Panels to intermediate studs. Notice how prongs spread to firmly embed themselves in the back of the Lok-Panels.

And here's the famous Nu-Wood Clip that locks the Lok-Panel edges together. The Nu-Wood Clip is reversible, fitting either into the grooves or over the tongue of the panel.

Sta-Lite Nu-Wood® Kleerfast
A PRODUCT OF WETZELHAUSER
DECORATING • ACOUSTICAL • INSULATING
INTERIOR FINISH

WOOD CONVERSION COMPANY
Dept. 119-50, First National Bank Bldg.
St. Paul 1, Minn.

MAY 1950
MIXED CARS — PINE, HEMLOCK and HARDWOODS

The Connor Lumber and Land Co.
Sales Offices, Marshfield, Wisconsin
P.O. Box 112-M Telephone No. 3 or 418 Teletype—Marshfield No. 26

Catalogs

473—LOUVERED WINDOW UNITS—How a louvered type window manufactured by this firm keeps winter cold and lets summer in is described and illustrated in literature available from Solar Air-Flo, Inc., Elkhart, Ind. Window units described can be installed in any and all kinds of wall construction. Unit is of modular design and comes assembled and ready to place, complete with exterior trim.

474—INDIVIDUALIZED GARAGE DOOR DESIGN—A Crawford Stylist garage door design sheet, available from the Crawford Door Co., 28-01 St. Jean Ave., Detroit 14, Mich., offers builders the opportunity to incorporate their own design ideas on Crawford garage doors. The Crawford Marvel-Lift Stylist door is called "The Garage Door of 1,000 Faces" by the manufacturers.

475—EQUIPMENT FOR SMALL WOODWORKING SHOP—Special cutters for windows, doors, cabinet work and screen doors, and supplies for many small power tools are illustrated and described in a 77-page catalog offered to builders and contractors by the Woodworkers Tool Works, 222-224 S. Jefferson St., Chicago, Ill. The catalog, No. 105, offers complete information in sizes and specifications.

476—"MOULDINGS BY THE THOUSANDS"—title of a new bulletin issued by Power Tool Division, Rockwell Manufacturing Co., 400 E. Vienna Ave., Milwaukee 1, Wis. Up-to-date information on the Delta-Milwaukee line of 3-lip shaper cutters for use on any shaper that has 3/4-inch spindle is given. Diagrams show how cutters can be combined for various cuts.

477—PORTABLE ELECTRIC TOOL LINE—Tappers, drills, nibblers, screwdrivers, cut setters, hammers, saws, grinders, sanders, polishers, and other Thor tools are described and illustrated in a new 11-page catalog. No. E-2, offered by the Independent Pneumatic Tool Co., Aurora, Ill.

478—PORTABLE WOODWORKING MACHINES—Bulletin No. 1 issued by J. D. Wallace and Co., 134 S. California Ave., Chicago 12, III., illustrates and gives performance data on No. 1 radial saw with shop table and roller extensions. How-to-use information and specifications are included.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department (June, 1950)
American Builder,
79 W. Monroe St., Chicago 3, Ill.

Please send me additional information on the following product items, or the catalogs, listed in this department:

Numbers

Name

Street

City

State

OCCUPATION

* Please note that occupation must be stated if full service is to be given.
Appearance plus the space-saving feature of recessed convectors are important homeowner appeals. However, if ordinary cabinet type convectors are recessed, there is a good possibility that sooner or later, the wall plaster around the unit will crack and mar an otherwise satisfactory job.

Exclusively designed for recessed installation, Tuttle & Bailey Type R Convectors solve this problem. Constructed with a front panel that extends beyond edges of the recess, sufficient overlap is provided to cover the wall plaster line... and your customer is sure of a permanently neat, trim installation.

ASK YOUR JOBBER TUTTLE & BAILEY, INC.
NEW BRITAIN, CONNECTICUT
NEW PRODUCTS

(Continued from page 64)

ADJUSTABLE TRUCK MIXER AB55002

Base adjustable discharge. Mixer and mixer can be elevated to a maximum height approximately equal to any high discharge type of mixer, or elevated to any intermediate point in the hoist range. Makes greater flexibility in getting concrete into forms. Has chain and gear drive, motor and motor and drive, and enclosed system. Floyd drive for smooth operation. Chicago Engin Co., Dept AR, 1605 W. Bruce St., Milwaukee 4, Wisc.

SIX-INCH JOINTER AB55006

Now it's a 6-inch jointer combines a 12-in. rebating capacity with a 40-in. bench and a 37-in. fence for planing and fitting. Raked fence can be tilted to 45 degrees to the vertical plane and 7 degrees in horizontal plane. The latter permits shaving cuts in wood where grain tends to lift in ordinary cutting. Mortise-opens front and rear table heights and depth of cut, and are in axis remote from the tip of machine, eliminating bending in shaping. Three cutter knives are safe to speeds of better than 6,000 FPM. All moving parts enclosed. Bostick & Anderson, Dept AR, Fairfield, Iowa.

COMBINATION WINDOW AB55031

If, you new window combination frame window with screen, inset of bronze mesh and a self-storing feature. Changed from screen to storm in a few minutes with an ordinary house-"brand" screw driver made in the house. Made of steel, mismo, treated with special preservative, sealing wood against moisture. Smooth satin finish ready for painting to match window frame. Angel Nurey Co., Dept AR, 340 Broad St., Fitchburg, Mass.

(Continued on page 138)
MEMORANDUM TO Builders:

More and more builders are installing more and more Kwikset Locks. You save money when you buy them... save time when you install them!

Feature For Feature.... Dollar For Dollar...... You Can’t Beat Kwikset!

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1107 East Eighth Street
Los Angeles 21, California

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Petko INDUSTRIES, INC.
1107 East Eighth Street
Los Angeles 21, California
How to make provision for attic fans in your homes

It is a simple matter to plan new homes so that they can be made comfortable throughout hot summer months. The two steps described below will save money for owners by providing for inexpensive installation of package attic fans, the most economical and practical means of cooling an entire house.

Step 1. Frame for ceiling opening over hallway.

By framing and installing fan when home is built, no extra construction expense is involved. If installation is to be made later, framed opening can be temporarily plastered over or closed with plywood.

Step 2. Provide adequate louvres in proper location.

On new construction it costs very little to include ample exhaust openings to handle attic ventilation. These may be gable louvres or porch, soffit or basement exhausts, depending on the design of the house.

Installation of Hunter Package Fan can then easily be made when home is built, or later

This new fan is a compact unit, with built-in fan, motor and suction box. Fits low-clearance attics. Certified air delivery ratings for any size home or climate.

Automatic or pull chain shutters are quiet, tight-closing. Fit narrow hallways. Soft ivory finish (baked enamel) harmonizes with the color scheme of any room.

MAIL FOR COMPLETE CONSTRUCTION DETAILS

Hunter Fan and Ventilating Company, 381 S. Front St., Memphis 2, Tenn.

Send copy of "How to Cool for Comfort" to:

Name
Address

City & State

Hunter Package Attic Fans

NEW PRODUCTS

(Continued from page 136)

TREE MOWER

AB55003

Continental tree mower handles trees with 30-inch diameter balls. Three-wheel suspension of mower affords mobility to reach trees easily.

ALUMINUM WINDOW

AB55025

Lupton Master aluminum window has extra deep set, full welded construction, and precision weathering. Designed especially for schools, hospitals and office buildings, win-

dows can be glazed inside or outside. Windows will accommodate glass up to 1/2-inch thickness. All hardware is made of aluminum. Screens of aluminum are also available. Michael Flynn Manufacturing Co., Dept. AB, 700 E. Goodfrey Ave., Philadelphia 20, Pa.

BENDING DEVICE

AB55028

Tol Handy-Bendy instantaneously makes uniform bends in any desired degree, including offsets in 1/2 and 1/2-inch rigid. EMT thin wall or aluminum conduit. No special adjustments necessary. It has a measuring gauge and bend degree indi-
of course, it's electric!

Short on Space?

Here's Electric Kitchen Efficiency in Only 60 INCHES of Wall Space

Here's how to conserve space...or provide more room for family living in small homes, apartments or cottages. Ideal for use in remodeling of single dwellings into multiple-family units.

The Westinghouse Electric Range provides ample cooking capacity. The Under-Counter Refrigerator provides 8 square feet of refrigerated shelf area. The sink bowl and drainboard are stainless steel. Can be equipped with the added convenience of a Westinghouse Waste-Away Electric Garbage Disposer. Two 30-inch steel wall cabinets complete the unit. It's a marvel of efficiency that will win the approval of your customers or tenants.

WESTINGHOUSE ELECTRIC CORPORATION
Appliance Division
Mansfield, Ohio

Plants in 25 Cities—Offices Everywhere

YOU CAN BE SURE...IF IT'S Westinghouse

- Easily Installed
- Eliminates Garbage Mess
- Double-Edged Shredders and Reversing Switch for Long Life
- Three 5-heat "COROX" Units
- Electric Appliance Unit
- Extra-Large, True-Temp Oven
- Fibreglass Insulated
- Reversible Door
- All-Steel Construction
- Economizer Mechanism
- 5-Year Protection Plan
Make the toughest job easy with Stanley-Carter Lock Mortiser

Machine perfect lock mortises made as easily and simply as a saw cut. Every mortise perfectly centered. Height rods and self-centering clamps cut down time from door to door. Less than a minute to change adjustments for different size locks. Average time per mortise only a minute... up to 400 doors a day. Simple ratchet device gives automatic feed. Full horsepower motor. Mortiser weighs only 26 1/2 lbs., lightest, sturdiest lock mortiser on the market.

NEW PRODUCTS
(Continued from page 118)

SWING LOADER
AB5616
Compact 180-degree swing loader, of 100-yard capacity, is operated by four simple hydraulic cylinders which hoist and lower, swing to right or left, and open and close its bucket. Swinging boom permits loading from 9-foot wide swath, and dumping into trucks without backing, turning or maneuvering of the machine. Can work in space 15 feet wide. Bucket clearance is 8 feet 2 inches. No gear shifting needed to reverse. Traction speeds from 1/3 to 15 M.P.H. Model 58. The Mobil Manufacturing Co., Dept. AB, Columbus 5, Ohio.

STAIR GAUGE
AB55037
Ellison stair gauge enables contractor or carpenter in 10 seconds to measure both correct length and angles for stair treads, risers, shelves for closets, stairboards, bookcases and whatever else you wish to measure.

STANLEY
This trade mark on electric tools tells you the most important thing you want to know about tools

When you buy an electric tool you have to take somebody's word about gears, motor, bearings, shaft, switches, power, etc. Whose word about tools could be more reliable than the word of "Stanley"... tool makers for over 100 years. On electric tools the name, Stanley, means that the tools are quality built, thoroughly tested and honestly rated. Covered by a generous guarantee and serviced by a network of Stanley Service Stations. See your industrial distributor or write for complete catalog. Stanley Electric Tools, 492 Myrtle St., New Britain, Connecticut.

(Continued on page 142)
"The finest construction-selling service ever produced for the building industry..." that's what hundreds of leading retail lumber dealers, and others in the small home merchandising field are saying about the great new book, "Planning Your Individual Home," just published by the National Plan Service, Inc., 1315 West Congress Street, Chicago. This book, of ninety-six playing-card-thickness pages, 15" x 20" in size, printed in full color, is a comprehensive new home presentation without parallel. Write to your own Association Secretary or to the National Plan Service, Inc. Start this book working for you!

Working for you, too, is the famous Certigrade Label, found under the bandstick of every bundle of shingles produced by the scores of outstanding Shingle Manufacturers who compose the Red Cedar Shingle Bureau. "Certigrade Shingles," all quality-inspected and guaranteed up to grade, can be sold by you with the assurance that they will bring repeat business. Use the new National Plan Service book to sell new shingle homes. Insist on the Certigrade Label and keep it—Working for You!
“There’s extra sell-power in that FOLLANSBEE terne metal roof!”

- IT LASTS A LIFETIME
- IT FITS INTO BUDGET HOUSING
- IT BELONGS IN ANY DESIGN OR COLOR SCHEME

Buyers have confidence in Follansbee Terne Metal Roofing because they know it will last a lifetime. Yet it’s never out of style because it can be painted to match, or contrast with, building trim.

These Follansbee Terne Metal Roofing features increase the sell-power of modern homes by increasing the pulling-power on home-buyers. They’re the features you can incorporate in housing of all classes because Follansbee Seamless Terne Roofing is moderately priced.

More and more home buyers will be asking about Follansbee Terne Roofing. To help you answer their questions we’ve prepared a little booklet entitled “Beautiful Lasting Roofs of Follansbee Terne”. Send for a copy, today.

FOLLANSBEE STEEL CORPORATION

NEW PRODUCTS

(Continued from page 140)

TRIPLE-ACTION MIXER AB55013
Deluxe Wonder Hi-Lo-Type mixer, for use in mortar, plaster and concrete products work, has 6-cubic-foot capacity and features triple box-mixing action. Sealed hie and jack shaft bear- ings, renewable blades, telescoping axle and adjustable scraper blades. Available with counter-type wheels, which cut over-all width to 31 inches to permit portability when doing inside work. Can be equipped with special gat- ing and bag-splitter. Construction Machinery Co., Dept. AB, Box 120, Waterloo, Iowa.

WATER SOFTENER AB55035
Cut-Matic zeolite water softener combines features of a permanently installed, home owned appliance with service features of the nation-wide Cutkin Soft Water Service plan. Push-

button control reduces regeneration of the unit to a few minutes personal attention. Ingenious valve automatically salts, rinses and returns the softener to service. Automatic drain device re- fills the appliance with water, eliminating spill- age. Cutkin Zeolite Co., Dept. AB, North- brook, Il.

POWER WHEELBARROW AB55017
Mono-Bug, 1950 model, has large steering wheel

with 4 to 1 gear ratio. Rated hopper capacity is 10 cubic feet, or 1,200 pounds on platform body. Powered by standard 4 H.P. gasoline engine, and travels at speeds of 1½ to 4 M.P.H., forward and reverse. Kwik-Mix Co., Dept. AB, Port Washington, Wis.

(Continued on page 144)
New DELTA MULTIPLEX®

low-cost, portable job shop!

Only Delta Multiplex—with exclusive Double Radial Action—has safety built in to protect you in all these ways!

10. No other saw has these two fully-usable 360° radial movements above the table!

FREE MOVIE!
Sound—Action—Color!
Ask your dealer to show you this film.

FREE DEMONSTRATION!
Ask your dealer to demonstrate Delta Multiplex in action.

FREE IDEA BOOK!
20 pages showing unlimited uses of Delta Multiplex. Send coupon for your copy.

Send for FREE Demo Book. Dept. MUL-1, M-25, M-35.

Delta \textregistered

ROCKWELL MANUFACTURING CO.
4545 S. Wabash Avenue, Chicago 1, Illinois

Send me new Delta Multiplex catalog, "Unlimited Applications!"

Name:

Title:

Company:

Address:

City:

( ) State:

TEAR OUT COUPON, AND MAIL TODAY!
NEW PRODUCTS

(Continued from page 142)

FLOOR MAINTENANCE MACHINE

AB55034
New improved American Deluxe floor
maintenance machine, designed for dry or wet clean-
ing and maintenance operations on a great
variety of floors, is offered in a new range of
sizes, including 14 and 16-inch brush spread.
Polished aluminum castings throughout. Ad-
justable handle can be set to any desired
angle through full 90-degree swing. Handle can
also be quickly detached for carrying or trans-
porting. American Floor Surfacing Machine Co.
Dept. AB, 511 South St., Chico Street, Toledo 3,
Ohio.

OUTDOOR RUBBISH BURNER

AB55026
Model 20, outdoor rubbish burner, is designed
to assure that waste contents are completely
reduced. Weather-resistant outer casing is of heavy
galvanized steel. Grote basket of electrically
welded steel rods hangs on hooks inside. Sur-
rounding space is ample for free circulation of
air currents induced by the vents in casing.
Basket holds two baskets of trash. Tapered
smoke damper can be tilted back on its hinges.
allowing full access to grate basket opening.
The Majestic Co., Dept. AB, 300 A Erie St.,
Huntington, Ind.

GAS WATER HEATER LINE

AB55030
Heaters are fully automatic, under-fired, center-
flow units, with snap action thermostat controls
and 100 per cent automatic safety pilot and
shut-off safety valve. Extra heavy, hot dip gal-
vanized, copper bearing steel tanks are tested
for 355 pounds pressure and 150 pounds work-
ing pressure. Completely blanket insulated.
Cathodic protection by replaceable magnesium
anode to extend tank life is optional. Offered
in 20, 30 and 40-gallon capacities. L. O. Kaven
& Brother, Inc., Dept. AB, 154 Ocean Ave.,
Jersey City 7, N. J.

(Continued on page 146)
Window shopping stops here...

The most intensive of all "window shopping"—that of the architect and builder—must stop at the sight of Reynolds Aluminum Casements. Their superiority in design and especially in finish is outstanding. Their flash-welded corners assure maximum rigidity and weathertightness. Their roto-operation is smooth and dependable. And of course they have the basic advantages exclusive to aluminum windows: rustproof permanence with no need for protective painting; narrow frames of neutral tone to harmonize with any concept.

Reynolds supplies residential casement, fixed and picture windows in all combinations, standard and western types... also Reynolds Aluminum Screens to fit these and all metal casement windows. Stop right here and write for complete descriptive literature in A.I.A. file form. Reynolds Metals Company, Building Products Section, 2003 South Ninth Street, Louisville 1, Ky. Offices in 52 principal cities.

REYNOLDS ALUMINUM RESIDENTIAL CASEMENT FIXED AND PICTURE WINDOWS

REYNOLDS ALUMINUM
NEW PRODUCTS
(Continued from page 144)

TWO-DRUM BELT SANDER AB55014
Two-drum belt sander can be used on all
woods, metals and plastics. Weight, 8½ pounds.
Belt sanding area is 3x3½ inches with replace-
ment belts available for all types of material.
Spring tensioning device makes various size
belts, from 3x23½ inches up to 3x24½ inches,
available for use. Flush right side of tool makes
it ideal for sanding in corners and against up-
right objects. Ball and self-lubricating bronze
drive bearings. Pedestal stand is available to
convert belt sander to a bench sander. In this
position, unit can be used for sharpening
chisels and knives. Mail Tool Co., Dept AB,
7717 S. Chicago Ave., Chicago 19, Ill.

TUB AND SHOWER FIXTURE AB55033
Queen Mary Adjustable tub and shower fixtures
offer ease of installation and accessibility of
exposed fixtures and appearance of concealed
fixtures combined. Conects of compact rough
brass valve with adjustable union, which
mounts on face of wall, with chrome plated
brass escutcheon handles, and Adjustable arm
and shower head. Plumbers supply in ½ inch
I.P.S. supplies on 8 inch centers, about 30 inches
above top of tub. No danger of damage or
theft. Milwaukee Faucet Co., Dept AB, 301
E. Reservoir Ave., Milwaukee, Wis.

GRAVITY GAS FURNACES AB55029
Model No. GF700-905 has input capacity of 90,-
000 B.T.U's and casing width of 27 inches,
depth of 37 inches and height of 48 inches.
Model No. GF700-1205 has input capacity of
120,000 B.T.U's, casing width of 29 inches,
depth of 29 inches and height of 56 inches.

Corner Cadet
MODEL 31

Wherever a corner type shower is specified the Fiat Cadet Model 21 is a
perfect natural for the job, much lower in cost than any built-up type
corner shower. The graceful lines of the Corner Cadet blend smoothly
into the bathroom walls to give the effect of a custom built installation.
Its beauty is in harmony with the finest bathroom fixtures.
The Fiat Dolphin or Zephyr glass door is available for the corner
Cadet and adds materially to the appearance and utility of the shower
installation.
The usual Fiat high quality of construction and materials are used
throughout. Bonded galvanized steel walls finished in white baked-on
synthetic enamel. Special colors available on order. No exposed screws
give a smooth sanitary interior. Overall size 36" x 36" x 80".
The corner Cadet is one of our most popular shower models.
Use coupon for catalog of complete line of Fiat showers.

FIAT METAL MANUFACTURING CO.
THREE COMPLETE MANUFACTURING PLANTS
(Chicago area plant) Franklin Park, Ill.,
Long Island City, N.Y. Los Angeles 33, Calif.

Please send catalog of Fiat Showers, Receptors and Doors.

NAME.
COMPANY.
STREET.
CITY. ZONE. STATE.

FIAT METAL MFG. COMPANY • 4301 Belmont Ave. • Franklin Park, Ill.

(Continued on page 148)
In a full-page ad over its own signature... Washington Post, March 5th... the management of Shirley-Duke Apartments stated:

"Like every item selected for these lovely apartment houses, we, the builders, spent considerable time in deciding on the make of refrigeration that would give our tenants the best in this type of home appliance which plays such an important role in their daily lives.

"The choice — NORGE.

"Norge is a symbol of the high-type construction, workmanship and material that have gone into this ideally located development in nearby Alexandria, Virginia."

And so say more and more builders and developers throughout America — the kind that make the trends and look forward to protected investments. There's a Norge to fit every need. Send coupon for full details.

See the features of America's finest home appliances
It's the RIGHT ANGLE for Tough Spots... Faster Jobs

CUTTING COSTS

You'll be amazed at the cost-cutting, time-saving and accurate performance — in both construction, and plant maintenance — of this remarkable new TRI-Speed HOLE SHOOTER with its 2-speed 'Right-Angle-Drive' attachment. See complete kit below.

This tool not only speeds up work in the tightest corners, but also provides the right speeds for boring with bits of every size, including expansive bits and hammers. Pays for itself on a couple of jobs. Also suitable for drilling in steel, and concrete with carbide-tip drills.

See Your Distributor

If he cannot supply you, write us and mention his name. Immediate delivery. "You'll buy if You'll Try."

MILWAUKEE ELECTRIC TOOL CORP.

Milwaukee TRI-SPEED Kit for Contractors . . .

1 5/16" HOLE SHOOTER, ball and roller-bearing equipped... Jacob's geared Chuck — 450 R.P.M.
2 Two-Speed 'Right-Angle-Drive' attachment... low side — 300 R.P.M.
high side — 675 R.P.M.
3 Special bits for boring in wood — 5/8", 1½", and 2½".
4 Special wrench for attaching and adjusting "Right-Angle-Drive" and Chuck.

$79.70

Adjustable "Long Arm" Accessory...
$24.50 EXTRA *For Pending

Milwaukee QUALITY TOOLS

NEW PRODUCTS

(Woodworking Machines AR5004)

Woodworking machine has cast-iron base and steel frame. Motor, vee-belt drive and lower wheel are enclosed by pressed steel coverings which is insulated by rubber bands.

One-Piece Garage Door AR5022

Essential! Know-how one-piece garage door stays entirely within the building in out position.

With no kick-out at the bottom. Can be opened from inside without stepping, tipping, or crawling over car. Easy to install, and no really heating is needed. All metal parts are heavy-duty. Essential Products Corp., Dept. 48, P.O. Box 66, Little Chute, Wis.

General Electric's "Birth of A Salesman" Visited 45 Cities

"The Birth of a Salesman," a full-scale stage production dramatizing the problems of appliance dealers and salesmen, has been presented by the General Electric Co. to its representatives throughout the country. Three triumphant completed tours and approximately 30,000 persons saw the production.

The show was professionally written and produced; and the cast was made up of stage, screen and radio performers. Total cost of all the productions was more than $50,000.

AMERICAN BUILDER
In the Weyerhaeuser 4-Square Home Building Service there are scores of modern homes... each the work of an able architect specializing in small home design.

Sixteen of these designs, according to the blueprint orders we have received, have proved of outstanding popularity. They repeat again and again. One is illustrated above.

A "Best Seller" is a good home to build and feature, because it has basic appeal that attracts more home buyers... makes more sales.

These 4-Square homes offer other advantages... they are engineered for fast, accurate construction... for the use of standard sizes of ready-to-use 4-Square Lumber which go into construction without needless sawing, fitting or material waste. Other standard, mass-produced materials are specified to take every cost-saving advantage.

It will pay you to see your 4-Square Lumber Dealer... see all the designs in this Building Service... complete blueprints, material lists and easy estimating forms are available for each design. You will like these designs. You will see in them great values for you as a builder, and for your prospects as home owners.

Weyerhaeuser

4-SQUARE LUMBER AND SERVICES

WEYERHAEUSER SALES COMPANY, ST. PAUL 1, MINN.
Whether you are building a new home or office or are repairing an old building you'll have no fastening problems if you use Paine Spring Wing Toggle Bolts. Spring Wing Toggle Bolts provide a secure and permanent fastening in hollow walls and ceilings and other hollow spots where it is impossible to reach the other side. They may be used in wood, gypsum, marble, lath and plaster, tile and sheet rock. They are especially useful for installing heavy shelves, partitions, wall mirrors, lights, and plumbing fixtures.

For the big user, try Paine’s Toggle Bolt Clamp that grips the bolt when it is to be tightened, so it can be tightened with a screwdriver. It cuts installation time in half and saves the mechanic’s fingers. Get Paine Toggle Bolts from your supplier today.

THE PAINE COMPANY
2959 Carroll Avenue
Chicago 12, Illinois

WRITE FOR CATALOG

More Power For You...
(Continued from page 118)

the introduction of power tools.

Not so long ago, I visited a lumber yard in a rural community where the retail lumber dealer had what amounted to a monopoly on the hog-feeder business of a large trading area. Several years ago a farmer had asked the lumber dealer to build him a hog-feeder to certain specifications. The job had been done by the lumber dealer’s foreman, who happened to be a handy man with tools. A few days later the farmer’s neighbor appeared in the yard and asked the lumber dealer to duplicate the feeder with certain changes which he regarded as minor improvements. As time went on, the changes became more and more infrequent due to the fact that no one seemed to be able to think up any more improvements. Naturally, the end result of this evolutionary development of a hog-feeder turned out to be something rather important to the community. Farmers soon found out where they could get a feeder that would meet their needs—a feeder that would perform satisfactorily for the owner and even for the hogs themselves.

But that of course was not the only important factor involved in this somewhat simple example which is intended to illustrate what power equipment means to all parties concerned.

It wasn’t very long before the handy-man in the lumber yard began to toss odds and ends of broken boards into what he called the “hog-feeder pile.” Come a rainy day, he would then cut these pieces up into parts. Then, in his spare time he would put the parts together and lo and behold, there was a hog-feeder—tops in quality, functional performance, and exceedingly economical as far as price was concerned.

The coming of power equipment made the construction of the hog-feeder an exceedingly simple and pleasant operation for the handy-man. The parts were made rapidly and accurately in spare time. Pieces of boards and 2x4s formerly regarded as waste were now utilized to construct a highly important piece of farm equipment.

It may seem a bit far-fetched to use a hog-feeder as a bright and shining example of what power equipment means to the light construction industry. A hog-feeder seems to present few problems so far as its construction is concerned. On the other hand, it is made up of a surprisingly large...
Bradley Straight-line Hardwood Flooring

Gives you the edge on competition because...

1. Strips match perfectly from end to end.
2. No crook, no forcing, no nailed-in tension.
3. Faster laying... lower labor cost... more profit.
4. Owner enthusiasm for a lasting, superior floor.

These advantages explain the loyalty to Bradley Straight-line by a nationwide host of contractors, floor layers and builders. If you don't belong to this group now, your first Bradley installation will put you in... for keeps.

Produced in Oak, Beech and Pecan, finished and unfinished. Bradley also manufactures Oak Plank Flooring, finished and unfinished.

Local Distributors Everywhere.

Bradley Lumber Company of Arkansas
WARREN, ARKANSAS
When H. C. Little oil heat is installed in a new home, the purchaser gets supreme comfort and the delightful convenience of exclusive H. C. Little self lighting and fully automatic operation ... plus lower upkeep throughout the long life of the equipment.

In addition, look what YOU get...

You get an essential home feature with far more than ordinary sales appeal.

You get the advantage of low first cost.

You get the added saving of low installation cost.

You get the benefit of obvious high quality that creates customer confidence in hidden materials.

You get a wide selection of types and models for every purpose.

1. The H. C. Little oil floor furnace, the ONLY one that is self lighting, needs no basement.

2. H. C. Little upright furnaces for first floor provide luxurious comfort and fit modern home plans to a "T."

3. Basement water air conditioners, like all H. C. Little units, are especially designed for maximum comfort and efficiency in small homes.

Write Dept. A-5

H. C. Little Burner Company

San Rafael, California

Factory Representatives:

Baltimore, Md
Burlington, N.J.
Butte, Mont.
Chicago, Ill.
Columbus, Ohio
Des Moines, Iowa

Detroit, Mich.
Poultneyville, N. Y.
Kansas City, Mo.
Newark, N.J.
Portland, Oregon

Prescott, Ariz.
Reno, Nevada
Salt Lake City, Utah
Seattle, Wash.
St. Louis, Mo.
St. Petersburg, Fla.

More Power For You...

(Continued from page 150)

number of parts, each and every one of which has to be cut accurately. The fact that it is now a simple matter for anyone in the lumber yard to do this work easily and to make each and every part alike is the answer to good construction at lower cost, for the very good reason that it can be achieved through the utilization of what might otherwise be a waste, or even through the use of lower grade materials.

Power tools enable the workman to quickly eliminate defects and to produce parts with which economical efficient end results can be achieved.

Then, of course, the coming of power tools opened up a vast field for hobbyists. It turned many a basement into a hobby shop. It created an avocation for many a business man that took his mind off his troubles in the evening and kept him basely engaged in making things out of wood until he became so tired late in the evening that he had no trouble whatever in falling off into a sound shudder.

It is not possible today to estimate how many people are engaged in making things simply because it has become easier to do it than if it was necessary to do the cutting by hand. Furthermore, it is equally impossible to estimate the effect of this widespread interest in construction. Magazines devote page after page to the subject. Mail order houses not only use much valuable space in their catalogs to advertise power equipment for the hobbyists, but publish manuals to show what can be done with the many power tools that are available. Same way with hardware stores and even with lumber yards.

It perhaps is an overstatement to claim that the coming of power tools has brought about the same change in construction as the internal combustion engine has brought to transportation. However, it can be stated without fear of contradiction that power tools have changed the construction industry from a hand-tool operation on the building site into something that is closely akin to the efficiencies which are achieved in factory production.

That is why I maintain steadfastly that nothing could have been more important in a day and age when new buildings are so greatly in demand and all of the structures on the face of the earth now need modernization and repair. That, of course, constitutes a whale of a big job and it will take everything that the power equipment people have to offer to satisfy the construction needs of the "land of the free and the home of the brave."
LOCKS SELL HOMES

TEXAS architect Milton A. Ryan has used Sargent Integralocks and the 4500 line in his own house. (Hardware supplier: Dumas Hardware Company, San Antonio, Texas.)

INTEGRALOCK GIVES YOU...
- beauty — round or square roses, sleek knobs to complement the beauty of any decor... finishes of sturdy brass, bronze, chromium or aluminum.
- utility — eleven locking functions, keyhole in knob.
- security — five- or six-pin cylinder lock, equipped with a shear-pin safety device in knob.
- service — maintenance zero sealed, all-brass and steel mechanism for generations of service... 50% smaller lock case for quick mortise and assembly.

WHEN John Q. Public and his wife inspect a house, most of the operating parts are either hidden or not in use. But not the hardware. They can see the hardware. They can feel it and use it. It's the one thing they can "try out." That's why a house equipped with Sargent Integralocks and the 4500 line is well on its way to being sold — and at a quality price. For the public knows and honors the name of Sargent. When they see that your house is equipped with Sargent locks, they automatically think "quality" and identify the rest of your house with that idea. Sargent locks are the best salesmen you can buy.

And they can be installed in one-fourth the time it takes to install ordinary locks. Yes, you pay far less for a lock that is the equal in quality to the finest in pre-war locks — and then you save on labor, too!

Write us for the name of your nearest Sargent distributor. We will be glad to supply you with further information about these two fine locks.

Sargent and Company
45 Water Street
New Haven, Connecticut
TO THE BUILDER WHO PLANS TO SELL UP TO 100 HOMES IN 1950!

GET 10% MORE*

When You Include

WASTE KING Pulverators

America's Finest Garbage Disposer!

Wherever Builders are making sales history, you'll find their kitchens equipped with the automatic WASTE KING PULVERATOR. This one outstanding feature in the kitchen can influence and close the sale faster for YOU, as it has for hundreds of builders in recent months. Best of all—the WASTE KING PULVERATOR offers the greatest value for the least amount of money. *Upgrades the home far beyond its value, as much as ten percent. Think it over! What other quality feature could you offer at such a low cost?

1800 WASTE KINGS INSTALLED IN BIGGEST GARBAGE-FREE COMMUNITY IN U.S.A.

COMPARE! Improved shredding sleeve makes WASTE KING PULVERATOR the most efficient garbage disposer in the world! Requires less servicing than any other garbage disposer known. Let us prove it to you!

FREE! Garbage Disposer A.I.A. file folder sets. Fill out coupon now! MAIL TODAY!

Last 50 Years' Heating Progress Summarized By Industry Bureau

The last 50 years have been the most eventful in the entire evolution of the heating industry since the caveman built his first fire, according to the Plumbing and Heating Industries Bureau.

Some of the most significant innovations in the heating industry, such as radiant heating, solar heating, and heating with the latent heat of the earth have taken place in the last 10 years, the bureau pointed out in a summary of 20th century industry progress.

Nothing has contributed more to comfort and saving in time and labor than central heating, automatically-fired, the bureau said. Central heating began in 1842 when Joseph Nason, a New England engineer, brought the Perkins system of hot water heating from England. This consisted simply of a boiler and pipe coils installed in the rooms to be heated.

Until the turn of the century, all radiators were made of pipe. Some highly rococo types were in vogue during the period after the Civil War. The type of radiator in use today was introduced in 1905. Significant changes in radiator designs were made about 1925 and again in the early 1930's. The result of these changes in styling is the modern, slender-tube radiator with its attractive vertical lines.

Coincident with the improvements in the design of radiators, other heat-distributing units were being developed. The introduction of convector and baseboard is the result of the striving of engineer-designers for the inconspicuous and unobtrusive in heating elements.

Panel heating is hardly more than ten years old. From a half dozen installations a decade ago, panel heating has progressed to more than 100,000 installations in every type of building.

These developments in more efficient heat distribution have been paralleled by equally significant innovations in boilers, controls, and burners. Boilers have been improved in performance and appearance. To provide the utmost economy there have been developed special gas-design boilers, oil-design boilers, and boilers made especially for use with stokers. Colorful jackets and the trend toward greater compactness in boilers have stimulated the use of the

(Continued on page 156)
Donneybrook Corporation chooses 

**K&M “Century” ASBESTOS-CEMENT ROOFING SHINGLES**

for appearance, long life, economical installation

When the Donneybrook Apartment Corporation chose K&M “Century” Shingles for the roofing on this modern Towson, Maryland, apartment project, there were good reasons for doing so—three good reasons.

Read what William F. Chew, President of the company says: “We recognized in the use of ‘Century’ No. 5 Asbestos Roofing that it would not only give us the desired effect, but that long life and resistance to fire are features inherent in the product.”

Commenting on the economical application of K&M Asbestos Shingles, Mr. Chew says, “We experienced on this installation which involved over 1400 squares, that the No. 5 Shingles were not only easily, but quickly applied.”

The experience of the Donneybrook Corporation proves again that your strongest sales points for K&M Shingles are attractive appearance, long life, and economy. Add to these the recognized freedom from maintenance, and you have a powerful sales story for any owner.

Tell your customers, too, about the “extras” in K&M “Century” Shingles. K&M Shingles resist weather, rust, rot, rodents, and fire. Their eye-pleasing colors—White, Black, Spanish Red, Surf Green, and Graytone—are built in.

With sales points like these, you can build your business—increase your profits—with K&M “Century” Asbestos-Cement Shingles. Ask your K&M Dealer for complete details, or write us direct.

**KEASBEY & MATTISON COMPANY • AMBLER • PENNSYLVANIA**

Original manufacturers of Asbestos-Cement Shingles in this country
EDWARDS non-electric DOOR CHIME
a big “little extra” in today’s market!

Why take chances with the all-important first impression that makes or breaks so many sales?

Now, for little more than the cost of ordinary bells and buzzers, an EDWARDS Door Knocker Chime can start your sale right ... yes, right at the front door!

“FAIRFAX” (shown above) ... classically styled, in gleaming brass with mirror on inside. Absolute tone purity guaranteed by exclusive Sonoscope-test.

No fuss, no wiring. It's on in a jiffy ... ready to sound that first sweet, all-important “welcome” note to every prospect!

NEW LOW PRICES. See your electrical contractor or write:
EDWARDS COMPANY, INC.
NORWALK, CONN.

Revise Standard for Fiber Insulating Board

Printed copies of the fourth edition of the Commercial Standard for Structural Fiber Insulating Board, CS42-49, are now available, according to an announcement of the Commodity Standards Division of the National Bureau of Standards.

The revision was initiated by the Insulating Board Institute, approved by the standing committee, and accepted by the industry. It provides for a new class of interior boards (flame-resistant finished surface) and also includes additional requirements of tensile strength perpendicular to surface, and methods of test.

This standard is offered as a basis for common understanding in the insulating board industry and establishes criteria of insulating board value and other physical requirements. In addition, it presents a basis on which performance guarantees may be made to the manufacturer.

Copies of the revised standard are for sale by the Superintendent of Documents, Government Printing Office, Washington 25, D.C., for 10 cents each. A discount of 25 per cent will be allowed on orders of 100 or more copies.

Heating Progress...

(Continued from page 134)

basement for recreation and hobbies.

During the first 25 years of the century, all hot water heating systems depended upon gravity for the distribution of hot water. For this reason it was necessary to have the boiler in a basement or other location below the level of the radiators.

About twenty-five years ago the principle of mechanical circulation of water was introduced. Impelled by a small but powerful electric pump, the hot water can now be directed, positively and quickly, to any place desired from a boiler located in any place, even the attic.

While the era of automatic heating began 30 years ago, its greatest impetus has been attained in the last twenty years. Oil burners, gas burners, and stokers have been developed to meet the demand for effortless and uniform heating.

From the crude thermostats of 25 years ago, controls have developed into the highly sensitive and precise instruments now available. Styled for beauty as well as accuracy, modern controls provide the utmost in economy. Among some of the most recent innovations are the indoor-outdoor type of control, the heat-anticipating control, and the electronic control.
Products for Better Living

MAKE BATHROOMS "SING"!

Equip them with smartly modern Miami-Carey cabinets, mirrors and matching accessories. Miami-Carey makes four top-quality lines to meet your customers' specific design and budget requirements... all designed for easy installation... and featuring new beauty and construction advantages offered only by Miami-Carey. Competitive pricing and liberal discounts assure your profits!

VENTILATION BY MIAMI-CAREY

Adds sales appeal and value to homes... keeps owners happy the year 'round. The Miami-Carey line is complete—includes models for attic, window and kitchen installation... each with certified air delivery ratings and a full complement of engineered accessories for economical installation and top performance.

TOUCH OFF YOUR SALES!

Let Miami-Carey's two lines help you. Ask your Miami-Carey dealer or write
Low Upkeep Costs with Wood Paneling

Hardwood panels with high insulation qualities cover all interior walls of northern Michigan home

All interior walls of this home on Torch Lake, Mich., are finished in hardwood paneling. Originally conceived as a cabin over a planned boathouse, the home, during its evolution, superseded the boathouse entirely to become a year-round residence.

Virgil J. Leech, owner and designer of the home, is president of the General Hardwood Company, Detroit, Mich. Leech stated that the cost of paneling was only slightly more than the cost of conventional wall finishes would have been. This difference, he believes, is compensated for by the low upkeep costs of the wood that takes mutilation and banging and requires only shellac and wax to repair. This was an important consideration in planning a “summer home” that will serve as a year-round recreation center for the Leech family and their friends.

Three hardwoods—maple, oak, and express—were used on the interior walls and in the cabinets. The living room is finished in knotty (or antique) oak in solid 3/4-inch panels which have a pattern run on their edges. Nailing strips on 2 by 4 inch studs help secure the panels. Although 3/4-inch Celotex and 30-pound building felt are used as sheathing on the outside walls, finished with 10-inch beveled fir siding, the interior wood paneling and air space have a high insulation factor themselves. To match the interior woodwork, a 3/4-inch white oak veneer was glued on the standard living room doors.

The bedroom is paneled in 3/4-inch hard maple, cut in an edge pattern. White maple cabinets installed in the bedroom were built in the Detroit factory of the owner and reassembled at the house. Twin beds in the room, carrying out the maple motif, are of bird’s-eye maple. Ceiling cabinets are build above all walls in the bedroom.

Oak was used to panel the hallway (Continued on page 193)
Nothing heats better than Modine Convecter Radiation...NOTHING LOOKS MORE BEAUTIFUL IN A BEAUTIFUL ROOM

To find out why the new Modine Convecter is the better way to heat apartments, homes, schools, offices or hospitals, call your Modine Representative. He's listed in the "Where-to-Buy-it" section of your phone book. Ask to see a sample, or write direct. Modine Mfg. Co., 1501 Dekoven Avenue, Racine, Wisconsin.

Send for New Modine Convecter Catalog Today!
Blue Ridge Louvres Glass panel adds sparkle to dinette, hides utility room, transmits light to both.

Blue Ridge Louvres Glass panel adds sparkle to dinette, hides utility room, transmits light to both.

The Thrifty Way to Build-in Beauty

You decorate as you build, when you separate rooms with Blue Ridge Patterned Glass. Equally beautiful on both surfaces, it provides a sparkling finish in two rooms... which means less plastering, painting or papering.

With walls or partitions of Blue Ridge Patterned Glass, you give your homes more "life." They're brighter, more appealing... because light flows freely from one room to the next. Over 20 view-obscuring patterns give you wide choice in creating individuality.

To meet specialized needs, Blue Ridge Glass may be Sultined®-finished for greater privacy and Securitized for greater strength. Ask your L.O.F. Glass Distributor for details, or write us.

**New Adventures in Decorating**

This idea book shows actual installations of Blue Ridge Patterned Glass in large and small homes. Write for your copy. Blue Ridge Sales Division, Libby-Owens Ford Glass Company, 8335 Nicholas Building, Toledo 3, Ohio.

**BLUE RIDGE**

**Patterned GLASS**

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**Dealer Conventions**

(Continued from page 72)

Cities: "Store and Yard Modernization," and "Business Management, Forms and Methods." Speakers were headed by Senator Joseph R. McCarthy of Wisconsin, whose subject was "Housing Legislation in 1949."

**CHARLES H. KEMPER**

Charles H. Kemper of Troy, Mo., was elected president of the group. He succeeds Paul M. Leid of Little Rock, Ark. First, second and third vice presidents are C. D. Burkholder, McPherson, Kans.; Henry H. Jones, Little Rock, Ark.; and Fred S. Stephenson, Chickasha, Okla. Other officers are: C. W. Baker, Kansas City, Mo., treasurer; Frank E. Tyler, Kansas City, Mo., general counsel; and Allan T. Flint, Kansas City, Mo., secretary-manager.

**Nebraska**

The 59th annual convention of the Nebraska Lumber Merchants Association was held Feb. 22-24 at the city auditorium, Omaha, with a near-record 1,600 persons registering. There were 104 exhibits.

Paul Ely of North Platte was elected president and Emil Costal, Schuyler, vice-president. Phil Runion, Lincoln, is secretary.


**Intermountain**

W. Arthur Jones of Cedar City, Utah, was elected president of the Intermountain Lumber Dealers Association at the 7th annual convention in Salt Lake City March 2-4. Registration at the meeting reached 850 and there were 53 exhibits.

The two new Association vice presidents are C. G. Morris, Rock Springs, Wyo., and Charles Bickler, Pocatello, Idaho. Melbourne Rommy of Salt Lake City is secretary-treasurer.

Directors are M. L. Horsley, Soda (Continued on page 162)
A house with extra sales appeal... built faster... for less money. That's what builder N. P. Ninneman of Harrisburg, Pa., reports on his unique method of framing Thermopane* insulating glass in window walls.

Mr. Ninneman figures his Thermopane window wall not only costs less than conventional wall construction, but also saves 20 or more days in construction time.

These benefits are made possible by using structural members of the house as frames to hold standard size Thermopane units. This window wall construction goes up so quickly that the house is completely closed in and glazed by the end of the fifth day, so inside work can proceed.

By using window walls, Mr. Ninneman is able to provide a spacious-looking home on a small floor plan. By glazing them with Thermopane, Mr. Ninneman assures buyers of comfort they wouldn't have with single-glazed window walls.

Case after case is being reported of builders who are adding the sales appeal of Thermopane window walls at little or no extra cost. Have you recently measured its possibilities for your houses?

*Trademarked.

FOR BETTER VISION SPECIFY THERMOPANE
MADE WITH POLISHED PLATE GLASS

MADE ONLY BY LIBBEY-OWENS-FORD GLASS COMPANY
3555 Nicholas Building, Toledo 3, Ohio

MAY 1950
Quick!
TIME TO CASH IN ON SHADE SCREENING!

It's the peak of the season now—and if you act fast you can still beat competition to the punch with Kaiser Aluminum Shade Screening! It's a fast-selling cooling device with the highest screening mark-up anywhere!

But it isn't just screening. Kaiser Aluminum Shade Screening keeps hottest rooms as cool as 15° cooler—by means of thin louvers which block the sun but not the view.

It does the work of Venetian blinds plus awnings plus insect screening at one-tenth the cost of all three!

Available in regular or tension frames from sash and screen manufacturers, and in 50-foot rolls from jobbers. We supply ad mats, sales tools, merchandising devices. Get in touch with us fast for AIA file and name of nearest manufacturer or jobber.

If you're a jobber, contact us now for profitable territories still open!
Sales offices and distributors in principal cities.

Kaiser Aluminum SHADE SCREENING
Produced by Kaiser Aluminum & Chemical Corp. Sold by Kaiser Aluminum & Chemical Sales, Inc., Oakland 12, Calif.

Dealer Conventions...
(Continued from page 150)

Syracuse, Idaho; W. B. Jes, Spanish Fork, Utah; H. B. Richards, Salt Lake City; C. C. Robinson, Salt Lake City; E. D. McCaslin, Burley, Idaho; Vance Petersen, Gunnison, Utah; A. E. Anderson, Jr., Salt Lake City; H. B. Wheelwright, Ogden, Utah; and W. W. Wiegle, Jerome, Idaho. C. W. Gamble, Boise, Idaho, is the dealer-director on the national board.

Western

The 47th annual convention and building materials exhibition of the Western Retail Lumbermens Association was held at the Multnomah Hotel, Portland, Ore., in late January, with 860 persons in attendance. There were 57 exhibitors.

Ralph Howard

Ralph T. Howard of Klamath Falls, Ore., was named president for the 1950 term, succeeding Kent Robow, Boise, Idaho. Newly-elected vice presidents are Ira E. Snyder, Enterprise, Ore., and Morris Tarte, Bellingham, Wash. The following vice presidents were re-elected: W. L. Johnson, Boise, Idaho; Harold Uglem, Lewiston, Idaho; F. G. Mauser, The Dalles, Ore.; H. F. McDaniell, Eugene, Ore.; C. A. King, Bremerton, Wash.; and R. E. Wert, Spokane, Wash.

United States Senator Wayne Morse of Oregon spoke on "Economic Problems Ahead." Prominent industry speakers included NRLDA President C. B. Sweet, R. A. Hilt, advertising sales director of the National Paint, Varnish and Lacquer Association; and Gates Ferguson, general sales manager of the Celotex Corp.

Hurry!
RE-SIDING PROFITS POURING IN NOW!

You can get your share of big profits with Kaiser Aluminum Siding this season—if you act now!
It's a new kind of siding that has permanent beauty, low first-cost, no upkeep costs. Result: Quick sales, high profits for you!

It's easy to work with. Goes on fast. Nailed on one edge only. Curved surface gives extra strength and beauty, assures watertight joints. Has permanent barked-on paint finish.
Made of tough, high grade aluminum. No buckles, wrinkles or "oil cans." Can't rot, rust or warp. Can't be damaged by termites. Resists fire.
We'll supply you with the kind of sales aids and merchandising tools that get results! Act at once, though. It's peak season—and you can get the edge on you. Write today for descriptive booklet and name of nearest jobber.

If you're a jobber: Some profitable territories are open. Contact us now! Sales offices and distributors in principal cities.

Kaiser Aluminum SIDING
Produced by Kaiser Aluminum & Chemical Corp. Sold by Kaiser Aluminum & Chemical Sales, Inc., Oakland 12, Calif.
How did Kelly Corp. cut construction costs in their new 120 unit “Hiramar” development?

A LOT of careful planning went into beautiful “Hiramar” rental development in Hyannis, Mass. Built by the Kelly Corporation, Arlington, Mass., there are a total of 120 living units—one, two and three bedroom apartments. The development is the last word in modern land planning with beautiful landscaping, gently curving streets and walks, five play areas and 100% off-the-street parking.

Kelly Corp. made a wise decision in building this Hiramar job. They standardized on Gold Bond products: Gold Bond Rock Wool Insulation, Gypsum Sheathing, Gypsum Wallboard and Perforated Tape Joint System and Gold Bond Sunflex Paint. Result: Responsibility for performance of all these materials is centered in one reliable manufacturer—National Gypsum Company.

Whether you're building 1 house or 100, low-cost or deluxe, let your local Gold Bond Lumber and Building Supply Dealer supply the job from start to finish. That way you get quality building products made to work together for a better, faster finished job.

NATIONAL GYPSUM COMPANY
BUFFALO 2, NEW YORK

You'll build or remodel better with Gold Bond

MAKING YOUR OWN

- Single-double hung and casement
- Tilt — including base, shoe, crown and cove mold, window stop
- Specials — like architectural detail millwork
- Raised panel doors
- Window blinds
- Storm windows and screens
- Interior paneling
- Nailed stair treads
- Lipped upholstered doors
- Special shaped windows
- Drawer fronts - all made quickly and at little cost work.

Boice-Crane SHAPER

"TRU-FORM" SHAPER CUTTERS

Keep your men busy on off days.
Free yourself from high mill charges. Save big money. Save hours spent in trips to the mill. Avoid long waits for special made single and millwork. Investigate now.

Boice-Crane intermediate capacity power tools are of just the right size for setting up a mill in your own shop. A 10-inch saw-6-inch cutter combination; a drill press and mortiser and a 14-inch band saw can be had for less than $700. They'll pay for themselves in no time and go on to make money for you for years to come.

BOICE-CRANE COMPANY
960 Central Avenue Toledo 6, Ohio
Please send FREE LITERATURE on Boice-Crane 18 Shaper.
[ ] New 44-page catalog on complete line.

NAME

FORM

STREET

CITY & STATE

Dealer Conventions...

(Continued from page 182)

was W. L. Brunton, W. L. Hubbard Lumber Co., Scottsburg, vice president in
1949. John C. McCormick of the McCormick Lumber Co., Lawrence, was named
vice president.

W. L. BRUNTON

The entertainment features, including the annual banquet and dance and a two-
hour theater party, proved especially popular this year.
Among the special speakers were Roy
Wendell, St. Louis business analyst, Ra-
io Commentator Harrison Wood and H.
R. "Cotton" Northrup, NRLDA execu-
tive vice president.

Michigan

Registration at the annual convention of
the Michigan Retail Lumber Dealers
Association Feb. 7-9 at Grand Rapids
reached the 2,000 mark. Ninety-one ex-
hibitors occupied 106 booths. The meet-
ing, the Michigan group's sixty-first an-
ual, was held at the Pantlind Hotel and
the civic auditorium.
Senator Homer Ferguson of Michigan
addressed the convention on "Domestic
and World Conditions." Other speakers
included H. R. Northrup, NRLDA execu-
tive vice president; Phillip Cody,
advertising manager, Edward Hines
Lumber Co., Chicago; and Col. Robert
M. Brooks, Jr., Roy Wendell and Co.,
St. Louis.
Lester Eisenberg, Holland, was
elected president of the Association. He
had been acting as president during the
unexpected term of the late Axel Becker
of Monroe. Others on the officer roster
are: vice presidents, Walter Peacock,
Port Huron, and T. B. Peterson, Gray-
ling; secretary, Hunter M. Ganes, Lass-
ing; assistant secretary, Donald J. Mos.
Lansing; treasurer, Norman R. Cove.
Lansing; and counsel, Donald P. Schur.
Detroit.

Mountain States

Approximately 1,000 persons attended
the Mountain States Lumber Dealers
Association convention at the Shaley
Savoy Hotel, Denver, Feb. 8-10. The
number of exhibitors was 64.
Elected president of the Mountain
group was Carl A. Wangberg of Colo-
(Continued on page 186)

#NEW Single Unit

GLASS BLOCK

VENTILATORS

ECONOMY with stainless steel louvers—permanent on the outside and adjustable on the inside—savings in cost. Available in 6-inch and 8-inch sizes.

UTILITY has permanent stainless steel louvers on the outside and adjustable glass louvers on the inside. Available in 6, 8 and 12-inch sizes.

Economy and Utility Weather-Bloc are well adapted for basements and other low level locations where glass louvers might be subject to breakage.

STANDARD WEATHER-BLOC

with glass louvers on the inside and the outside. Blends in perfectly with glass block panels.

WEATHER-BLOC takes no longer to install than a single glass block—simply set in place of a glass block. Used in HOMES, STORES, OFFICES and INDUSTRY. WEATHER-BLOC offers controlled ventilation—aluminum screen inside retards rain, snow, dust and insects. No sacrifice to beauty or privacy. Permanent stainless steel body in Old or Newly Completed Glass Block Panels where Ventilation is Desired. Break Out Single Glass Block and Replace with Weather-Bloc.

Available in 6, 8 and 12-inch sizes.

WEATHER-BLOC takes no longer to install than a single glass block—simply set in place of a glass block. Used in HOMES, STORES, OFFICES and INDUSTRY. WEATHER-BLOC offers controlled ventilation—aluminum screen inside retards rain, snow, dust and insects. No sacrifice to beauty or privacy. Permanent stainless steel body in Old or Newly Completed Glass Block Panels where Ventilation is Desired. Break Out Single Glass Block and Replace with Weather-Bloc.

Available in 6, 8 and 12-inch sizes.
WOOD WINDOWS THAT SAVE BUILDING TIME AND COSTS!

Less cutting and trimming on the job... less waste... lower building cost! These are the reasons why it pays to insist on modular-size windows, sash and frames!

The 25 most popular sizes of 5 of the most popular designs shown on this page are manufactured on the 4-inch “module” or unit of measurement. All are available promptly. See your lumber dealer.

OPENING SIZES
(Note: Windows are made 1/4” narrower and 1/4” shorter than window opening sizes shown below)

<table>
<thead>
<tr>
<th>Design (No.)</th>
<th>Opening Size</th>
<th>Glass Size</th>
<th>Rail Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-6x3-2</td>
<td>26x16</td>
<td>36x9½</td>
<td>6½x20</td>
</tr>
<tr>
<td>2-6x3-10</td>
<td>26x20</td>
<td>36x9½</td>
<td>6½x20</td>
</tr>
<tr>
<td>2-6x3-3</td>
<td>26x24</td>
<td>36x9½</td>
<td>6½x20</td>
</tr>
<tr>
<td>2-6x3-4</td>
<td>26x28</td>
<td>36x9½</td>
<td>6½x20</td>
</tr>
<tr>
<td>2-6x3-10</td>
<td>26x34</td>
<td>36x9½</td>
<td>6½x20</td>
</tr>
</tbody>
</table>

The 25 most popular sizes of 5 of the most popular designs shown on this page are manufactured on the 4-inch "module" or unit of measurement. All are available promptly. See your lumber dealer.

GLASS SIZES—1 1/8” CHECK RAIL WINDOWS

For additional data, see our catalog in Sweet’s Builders’ File

POPULAR DESIGNS OF MODULAR-SIZE WOOD WINDOWS

Made of ponderosa pine, these modular-size windows have the natural insulating advantages that wood so handsomely provides. They hold paint or other finishings lastingly... discour-

NATIONAL WOODWORK MANUFACTURERS ASSOCIATION

332 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS

This seal of approval identifies woodwork products which meet NFMA minimum standards of toxic preservative treatment.

MAY 1950
MORE DOLLARS AND SENSE!

More Facts that Prove Bermico Cuts Building Costs

Bermico’s convenient 8-foot lengths store more safely with less breakage... are easier to handle on the truck or job. Bermico weighs only \( \frac{1}{2} \) as much as other types of pipe. A cinch to lay, too. No joining compound needed. A few hammer blows and Bermico joints are tight... and stay tight even when the ground shifts underneath!

Small wonder builders find that Bermico saves money, time, effort all along the line. Bermico is a hit with customers, too. It’s rootproof, leakproof, watertight... unaffected by temperature extremes... Bermico assures a smooth, dependable high capacity water flow.

That’s why, today, millions of feet of Bermico are in use in house-to-sewer connections, septic tank disposal and drainage systems.

Bermico can cut your costs for time and labor and increase your profit as well. Drop us a line and get the whole story of why it pays to insist on Bermico Sewer Pipe.

Dept. A-15, Brown Co., 500 Fifth Ave., N.Y.

BERMICO SEWER PIPE
A PRODUCT OF BROWN COMPANY
ALL-ALUMINUM SCREENS
FOR EASY SALES AND GREATER PROFITS

FOR WOOD WINDOWS:
No ladder needed—
Reinforced by cross
brace, screens can be
hung or removed
from inside the house.
Very light weight.
Easily handled by Mr.
Housewife.

FOR METAL WINDOWS:
Attached with WING
CLIPS (at no extra
cost). After installa-
tion, no screwdriver
needed to change or re-
move screen for win-
dow washing. Flips
off instantly. No loose
screws to get lost.

Because they are light in weight, they are easy to Handle—
Demonstrate—Deliver. (Many customers will take them home in
their own cars.)

Made of rust-free aluminum and packaged in a handy carton.
Do not deteriorate while in the warehouse. Take up minimum stock-
room space, because carton of 10 screens is under 5” thick.

Manufactured by modern methods—assembled on a production
line—by people with a decade of experience in aluminum screens.

Your Guarantee for uniform top quality and freedom from con-
sumer complaints.

All standard sizes for wood and metal windows available from stock—shortest delivery time on special orders. You can take all
your screen problems to Fabriko.

DISTRIBUTORS INVITED
For samples, prices and information on available
branches, write Department E.

Screens & Fabricated Metals Corp.
NORTH BERGEN • NEW JERSEY

IN ANY QUANTITY — IN ONE QUALITY — THE BEST!

Why consumers
go for

FABRICO

ALL-ALUMINUM SCREENS

Light Weight. Screens are easily handled
—quickly installed.
Rolled Tubular Section. 18 x 14 mesh
Alclad aluminum screening combines cor-
rison-resistance with maximum strength.
Held at maximum tautness by specially-
designed aluminum spline. Precision engi-
neered for maximum strength and rigidity.

Corner Locks give wedge-fit without cor-
rrosive effect or discoloration.

No Stains, no discoloration of walls, 
woodwork, draperies or blinds.

Hardware Included—complete with rust-
resisting hanging or attaching devices.
Can be used also to hang storm windows. WING
CLIP for casement windows.

Protective—A glowing cig-
arette or windswep omitted
leaves will not harm the
screen.
BRADFORD
ELECTRIC SAWS

Model 160 - 6" Saw
Straight cut: 6 1/8" max.; 1 1/2" min.
Bevel cut at 45°: 1 1/4" max.; 7/8" min.

Model 180 - 8" Saw
Straight cut: 8 39/64" max.; 1" min.
Bevel cut at 45°: 2 1/16" max.

Bradford Portable Electric Saws are ruggedly constructed and fully powered to take on the toughest sawing jobs! They're better designed — inside and out — for easier handling, smoother sawing, more accurate work. You can feel the difference in the Bradford design!

And Bradford Saws are built to last. Ball bearings with permanent lubrication are used throughout. Gears are helical cut to give maximum driving power. A powerful 110 volt AC/DC motor drives the blade with quiet, cool-running efficiency.

Own a new Bradford Portable Electric Saw — they're the choice of craftsmen everywhere. See your Bradford dealer for a demonstration. Write for bulletins giving specifications and prices.

THE BRADFORD MACHINE TOOL CO.

R. E. Saberson Joins Reserve Supply Co. In Expansion Program

Reserve Supply Co., St. Paul, Minn., has completed plans for expanding its functions with the addition of a merchandising department, according to a recent announcement by J. R. Randall, president.

R. E. Saberson, who has been in charge of the trade promotion department of Weyerhaeuser Sales Co. for several years, has joined the Reserve Supply organization in a full-time capacity and will head the new department April 1.

Johnnie Giles, a member of the executive staff since 1947, will devote increased time to administrative duties under the expanded program.

In commenting on the expansion plans of the company, Randall stated that "It will be the policy of our merchandising department to integrate closely the promotional activities of our suppliers with the sales program of our dealers and to make maximum use of the unusual opportunities for doing so which exists in our organization.

"Mr. Saberson has been familiar with the objectives of the Reserve from the beginning and is equally well-acquainted with all phases of the distribution problems of our suppliers and members. We feel certain that a carefully coordinated merchandising program of this kind can do a great deal to stimulate the movement of building materials from the producer, through the lumber yard, to the ultimate consumer."

1950 Home Improvements May Total $6 Billion

Expenditures for modernization, repair, and remodeling of homes in 1950 may come to as much as $6 billion, or not far below the amount expected to be spent for construction of new homes, according to an estimate by James M. Ashley, president of the Producers' Council.

STAPLE — to save time speed up production

T-32 Gun Tacker

P-22 Hand Stapler
"Reaches into hard-to-get-at places." Ideal for hogging, wrapping, sealing bags, etc. All steel construction with chrome finish. Fastens up to 40 sheets of paper. Loads 500 Standard Staples 1/2", 1/4", 1/8". Tensioner. Price $5.90.

Slightly higher in the West and Canada

BROWN'S
SUPERCEDE
NATIONALLY ADVERTISED

Guaranteed 90% Red Heart or Better

Only Super Cedar is of the same unbroken quality standard that guarantees every package to contain 90% Red Heart or Better, and 100% oil content that produces the pleasing aroma.

100% oil content

Suggest Cedar Lining
Electors to Every Home Builder. There is Nothing Better than Brown's Cedar Lining.

ALL WIDTHS PUT-UP 40 FT. TO PACKAGE

Product of GEO. C. BROWN & CO., Inc.
GREENSBORO, N. C.

LARGEST MANUFACTURERS OF ANIMATIZED RED CEDAR IN THE WORLD

AMERICAN BUILDER
Here's how to build attractive, durable houses at prices that appeal to home buyers ... and with extra features that help close sales quickly.

When you add new, modern attractiveness to your houses, and cut costs in the process, you're bound to attract more buyers.

That's what happens when you build with modern, reinforced concrete stucco ... according to the Keystone System of Stucco Application.

Stucco's design possibilities fit perfectly with modern house styling. Stucco's lower cost not only reduces house prices, but also permits the addition of extra features in your houses that increase their sales appeal.

The Keystone System of Stucco Application assures durability in stucco construction. Stucco applied the Keystone way is on to stay because heavy-gauge Keymesh Reinforcing is embedded in the center of the slab.

For complete information about the Keystone System of Stucco Application, write for your copy of the 44-page "Keystone System" book.

KEYSTONE STEEL & WIRE COMPANY
Pewitt, Illinois
Manufacturers of Keymesh Reinforcing - Nails - Welded Fabric - Tie Wire

Modern, Durable Stucco Calls for KEYMESH
How Contractor Saved Money On Special Flooring Job

LAYING a new floor of first grade tongue-and-groove maple for the Rollercade skating rink at Berdan and Haverhill Drives, Toledo, Ohio, presented a number of unusual problems for Ray Willis, floor contractor and manager of the Superior Floor Laying and Surfacing Co., Toledo, Ohio.

The new floor was laid in a rotunda design in which the 23/32 inches by

Router and shaper is used to put tongue on ends of center boards cut on radius 3/4 inches maple flooring was laid flat and curved in the shape of a large oval. The inner curve of this floor has a 17 3/4 foot radius—one of the smallest radii of any yet laid in which the strips are laid flat. This required a sharp curvature of the boards at both ends of the floor.

TOUGHEST curves were near center in laying this Rollercade floor. Workman is shown placing strips at outer edge of floor where radius is greater.

There are two methods that may be used in laying this type of floor. In one method, a form is nailed in place to outline the center area or "core" of the rotunda design. The boards are then laid in a forced curve beginning (Continued on page 172)
Modern automatic heat that’s low-cost and easy to install...helps sell houses faster

**Coleman**

**Floor Furnaces**

*Models for Gas, Oil and LP-gas*

**ECONOMICAL FOR BUILDER AND BUYER**—The modern low-cost heating unit that keeps costs down. The Coleman Floor Furnace fits in the floor and gives clean, silent, economical heating. Installation is easy and low-cost because (1) No basement or pit is needed; (2) There’s no expensive plumbing; (3) There are no air ducts. A Coleman makes and moves the heat for circulated warm air through 4 to 5 rooms, with a complete change of warm air 3 to 5 times an hour.

*Saves space — Saves cost*

**COLEMAN’S Handy GAS WALL HEATER**

Fits in wall between upright studs; extends out only 3½”. Uses no room space. Ideal for slab-floor homes. A heat-mover that circulates warm air. A heater of many uses.

**SHALLOFLOW**

The little furnace with big-furnace heat! So shallow it saves up to 18” on depth. It’s flood-proof to 19” below floor. Though small, it has the dependable heating efficiency for which the larger models are famous.

*THE COLEMAN COMPANY, INC.*

*WICHITA 1, KANSAS*
KEEP DESTRUCTIVE WATER OUT—

You can count on a long-lasting, moisture-resistant seal when you use Cabot’s Clear Waterproofing.

PREVENT EXPENSIVE WATER DAMAGE

Protects both you and the owner against damage caused by water seepage...freezing and thawing...unsealing efflorescence. Cabot’s Waterproofings penetrate deep into voids and pores of masonry walls...provide long-lasting, moisture-resistant seal. Walls treated as many as twenty years ago with Cabot’s Waterproofings are still moisture-proof today.

Whether you’re building one house or a development, if you use above-grade masonry, protect it with Cabot’s Waterproofings.

- For Cement, Stucco, Cast Stone and all light colored masonry...use Cabot’s Clear Cast Stone Waterproofing.
- For Red Brick and dark colored masonry...use Cabot’s Clear Brick Waterproofing.

Write Today for samples of Cabot’s Waterproofings and complete information. Address:

SAMUEL CABOT, INC.
531 Oliver Blvd.
Bearden, Mo.

How Contractor Saved...

(Continued from page 170)

at this form and proceeding outwards toward the edges until the entire outer area is laid. Then the center form is removed and the inner “core” is laid of straight boards—whose ends have been cut on a radius and a tongue put on. This method was chosen by Mr. Willis for this job.

The other method, which requires a portable router, starts by laying the center “core” area first. Then the portable shaper and router are used to trim the ends to a chalk line at the proper radius and add a tongue to the ends. This serves as the form for the curves in the rotunda design. Willis believes this second method would have advantages over the first method—but as he did not have a portable router available when he started the job, he elected to proceed by the first method.

The floor is 220 feet by 120 feet, total area 26,400 square feet. Originally the building had been used for ice skating. Then a maple floor was laid about six years ago, and it re-

CENTER area is left open, filled in later with strips laid straight. Parts of floor in Rotunda are being sanded while work of laying the floor proceeds.

FINAL cut is made with No. 1 grit, using American 8-inch heavy duty sanders. Eight men worked on the flooring job which was completed in 15 days.

(Continued on page 174)
NEW gas floor furnace facts!

You may know gas floor furnaces from A to Z. But if you haven't checked "Duo-Therm" lately, your facts may be as dated as last year's fishing license.

What's hot that Duo-Therm's got?

4 Feature-Packed Gas Floor Furnaces with—

Exclusive Equiflame Burner. Built to give long-life plus efficient performance with all types of gas. Clean-burning, quiet and trouble-free. Burns a uniform flame at all ports at all stages of fire.

Exclusive Comfort Selector. Eliminates "chills and fever" heating. Gets rid of that off-and-on, on-and-off operation. A flip of the switch on the side of the thermostat tailors low fire setting to fit the weather.

Revolutionary All-in-One Control. A compact, complete performance-packed package that's a cinch to convert to automatic at any time. Automatic safety shut-off standard on all models.

Generous 10-Year Warranty—on all models.

Plus More Built-in Builder Benefits than we could list on this whole page!

- All models shipped ready to install quickly and easily.
- So compact that only one joist need be cut on any installation!
- Designed so most service jobs can be handled from above the floor.
- Built to Duo-Therm quality standards, yet priced amazingly low.
- Two Series—shallow and standard—to fit any home.
- Choice of floor or dual-wall registers on all models.
- Range of BTU inputs from 35,000 to 60,000.
- Thermostatic or manual controls available on every model.
- Waterproofed to meet regional FHA requirements.
- AGA approved.

FREE! Get the "Specs" on the Duo-Therm Gas Floor Furnace Story!

- Complete, Detailed Specifications—the "nuts and bolts" facts you want on all 4 Duo-Therm Gas Floor Furnaces.
- Fact-Packed 8-Page Catalog—a complete, fully illustrated catalog that gives the Duo-Therm Gas Floor Furnace story from your prospects' point-of-view.

Fill out and mail coupon for descriptive literature.

[Mail coupon for descriptive literature]

Duo-Therm Div. of Motor Wheel Corp., Dept. AB-5
Lansing, Michigan.

Please send your floor furnace literature pronto, without obligation or cost.

My name______________________________
Firm______________________________
Firm address______________________________
City________________________ Zone State________________________

Over 1,500,000 Warmly Satisfied Customers

Duo-Therm
Always the Leader

NEW gas floor furnace facts!
How Contractor Saved... 
(Continued from page 172)

First step in starting the job was to examine the old floor carefully, as this would be the subfloor for the new installation. All dirt was removed, broken boards were replaced, raised nails were driven down, and the contractor made sure the floor was level and solid. The old floor was swept clean, using no water.

Then the felt paper was laid. Next an area in the center was chalked in the shape of an oval 100 feet long and 35 feet wide. A form was made of wood strips nailed down to outline the perimeter of this oval.

Then the contractor started laying the strips, beginning with the smallest radius curves at the end of the oval and proceeding outwards from the form. A special jack was used for bending the strips which were laid flat. The workmen laid a width of about twelve strips at a time around the oval.

Proper nails and correct nailing are important in every flooring job to hold the flooring securely in place, make the floor rigid, and prevent squeaks. In this particular installation the contractor used heat-tempered #8 "Screw-tite" nails. These nails were required to anchor the strips firmly under the stresses and strains of forced curving. The nails were started through the strip where the tongue leaves the shoulder, and driven inwardly at an angle of 45 to 50 degrees to the floor. The nails were spaced approximately 8 inches apart on the curves, and 12 inches apart on the straightaways.

Drawing up is also an important part of proper installation—especially on straight sections. Where curves are forced, this operation usually eliminates the need for additional drawing up. After laying three or four strips of the flooring in the straightaway areas, the workmen placed a short piece of straight-edged hardwood against the tongue of the outside strip of flooring and drove it up snugly. This located the flooring strips in their proper final position.

In this manner the oval was completed to the edges of the room on three sides and to a halfway area on the fourth side. As this halfway was to be laid of straight strips, the contractor used a portable router to cut the irregular edges of the oval in a straight line. He then put a tongue on the edge of these strips, to match the grooves of strips laid straight in the hallway.

To fill in the core of the oval, the
(Continued on page 176)

New portable KOHLER ELECTRIC PLANT saves time... lowers costs!

WILLYS' NEW HURRICANE F-HEAD ENGINE

7.4-1 COMPRESSION GIVES MORE POWER, MORE MILEAGE

You are looking at America's newest, most advanced engine. It is a 4-cylinder, F-head engine—with valve-in-head intake and valve-in-block exhaust. It has 7.4-1 compression, but does not require premium fuel. Its short, evenly-heated intake manifold and giant-size intake valve deliver a full charge of fuel mixture to each cylinder at any speed. It literally squeezes more energy from every drop of gas, giving lower fuel consumption and higher horsepower. See the new Willys models with the HURRICANE Engine at Willys Dealers.

THE NEW WILLYS STATION WAGON

Here's the new all-steel Willys Station Wagon...handsomely restyled...HURRICANE-powered for stepped-up performance and long mileage. It's two cars in one—a comfortable passenger car and, with seats out, a big-cargo vehicle for hauling.

A New 1/2-Ton Truck WITH "HURRICANE" POWER

With its money-saving HURRICANE Engine and long-lasting functional body, this new 1/2-ton Willys Truck is the top buy in its field. Comfortable cab...sensible fenders...high road clearance...a host of other features. 118-inch wheelbase; 4250 lbs. GVW.

WILLYS-OVERLAND MOTORS, TOLEDO, OHIO • MAKERS OF AMERICA'S MOST USEFUL VEHICLES
For Sale signs come down faster... when you specify MYERS Water Systems

Today's rural home buyer has an especially critical eye for equipment quality. And that's where Myers Water Systems can stand you in best sales stead. Your confident prospects are doubly pre-sold on Myers quality: (1) by the most consistent, most comprehensive advertising in the field; (2) and by the enthusiastic endorsement of your Myers equipment by long-time owners. Wherever you build beyond city water mains, you'll speed up sales by specifying Myers Water Systems. You'll get the right system, too — because the full Myers line of Electro and Reciprocating Types covers every possible need. Mail coupon for catalogs and name of nearest distributor.

New Myers "MT" Electro Type for Shallow and Deep Wells
New Myers Water Softeners — 44% Greater Softening Capacity
Vertical Type Electro for Shallow Wells
Self-Chilling Working Heads for Electric Depths
Reversing Type for Shallow Wells
Automatic Pump
Dispensing Valve
Self-Chilling Building for Shallow Wells

The P. E. Myers & Bro. Co.
Dept. 8-93, Ashland, Ohio
Send free literature on Electro Surface Water Softeners and Pump

Name
Address
City
State

How Contractor Saved...

(Continued from page 174)

form was removed and strips were laid straight in this area. Each end of the center board was cut on a radium, and a tongue was put on using a router and chopper.

The sanding operation included two cuts, using #2 and #1 grits. The contractor employed a full complement of American machines, including two Super 8-inch sanders, two standard 8-inch sanders, three edgers, one sanderplane belt sander and two Deluxe floor maintenance machines. In using the Super 8 sanders with #1 grit, he made a cut at 2200 R.P.M., 65 pound pressure, with 220 volt current. By using these machines, he eliminated one cut. He followed the grain on all cuts, sanding a quarter of the oval at a time.

It is important to have adequate capacity in both cable and current. The cable used by Willis was #8 and #10 high-grade rubber-covered cable. As the current is at 220 volt, in this instance, a booster was not required. However, a voltage booster will many times save money for the contractor by assuring full power on the job. This avoids damage to equipment and prevents loss of time and labor through slow-operating machines. A new booster for this purpose is manufactured by the American Floor Surfacing Machine Co., Toledo, Ohio, which will transform weak voltages of 95 or 105 volts to a full 115 or 230 volts. Also, it boosts 115 or 208 to 230 volts and will reduce 208 volts to 115 volts. All portable electric equipment up to 5 H.P. can be operated with a booster of this type.


'49 Seeding Production

More than 380,000,000 seedlings were produced in the nation's nurseries in 1949, enough trees to reforest a third of a million acres, according to a survey of all federal, state and private nurseries. E. E. McClellan, chief forester for American Forest Products Industries, McClellan said that, assuming a survival rate of two-thirds, the 1949 crop will in a half century supply the country's wood needs for a year. Estimates for 1950 call for more than 500,000 seedlings, enough trees to reforest half a million acres.

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These new Smoothgrain asbestos shingles are stronger because they have the same cross section throughout...they cut cleaner because the shingle cutter always works against a smooth surface...they resist soiling better and always look the same from any angle, because they have no grooves, no raised texture to catch dirt or highlights and thus distort appearance.

SMOOTHGRAIN Shingles are available in an outstanding variety of beautiful colors, all PERMATONE colors. As "Permatone" implies, the color is "sealed in"...comes from myriads of tiny ceramic granules embedded into the asbestos-cement.

The colors include Heather Green, Autumn Brown, the distinctively rich and practical Weathered Gray, and the ever-popular Silver Gray which goes well with any trim or color scheme. For full information, write Johns-Manville, Box 290, New York 16, N.Y.

ASK TO SEE SAMPLES!

"Open End" Mortgages Could Triple Spending On Home Improvements

A "gold mine of credit" is offered to firms in home improvement work by the "open end" mortgage, according to a statement by Richard G. Breeden, secretary-manager of the Insulating Siding Association. Breeden said that it has been predicted that general adoption of this method of financing could double or even triple the present two billion dollars spent annually on home improvements.

Breeden stated that while often available when FHA Title I is not, the "open end" mortgage is by no means a mere substitute, but in many cases is to be preferred to the FHA instrument, offering greater immediate and long-term advantages to the contractor, customer and lending institution.

In its purest form, he said, the provision to make additional loans is written right into the original mortgage. However, only recently have lending institutions begun writing such original mortgages and so most "open end" mortgages at present will depend upon later arrangements between the customer and his mortgage holder.

The following example was given by Breeden to illustrate the possibilities of this type of mortgage:

"John Jones had an original mortgage on his home of $5,000 at five per cent. How’s he paid off $2,000. He decides to improve his home by having insulating siding applied. He gets an estimate of $900 for the work from a siding contractor."

"To finance this amount under Title I, with its maximum three-year term, would be too heavy a burden for him to carry. Also, because Title I loans are commonly discounted in advance, he might have to pay an interest rate which amounts, in effect, to 97½ per cent."

"However, the siding contractor points out that the agency holding his mortgage probably would advance the $900 under the original mortgage terms. The agency advances the money, simply adding the amount to the remainder due on the mortgage and increasing the monthly payments slightly to make up the difference."

Breeden pointed out that the various means of writing "open end" mortgages depended on the legal requirements of each state and locality; and that, while it is a matter which is the concern of the lending institution and not the contractor, the contractor should be well-acquainted with basic legal problems and local policies governing such transactions.
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LUPTON METAL WINDOWS
WHO Won Fourth Prize?

American Builder assures its readers that it does not go in for guessing games, even though it inadvertently omitted the name of the fourth prize winner in its recent women's architectural contest when the winning entries were reviewed in the April issue. This excellent design (Page 79, April) was submitted by Miss Nancy C. Reeves, to whom we humbly apologize. Miss Reeves is a student at the University of Texas, to which institution we also express our regrets. A reproduction of the entry is shown above.

For more complete details, including judges' commentary, see April issue.

From Excavation to Trim...

(Continued from page 89)

man Square development. All houses on corner lots have fireplaces and breezeways, which create a secluded patio. Every house has a two-car garage, either attached or detached. Lots have a minimum of 6,000 square feet. The project has paved streets, concrete curbs, sidewalks, sewers, and asphalt driveways. Front lawn and shrubs are planted, and clothes poles and incinerators installed.

Prospective buyers have a choice of interior paint colors and floor coverings, and if they specify may have tile in bath and kitchen and stainless steel drainboards. The first buyers in a block are given a choice of approved exterior colors and subsequent purchasers may select colors which harmonize with the others. A choice between asphalt shingle and Delamite granite roofs is also given.

Other features of the homes are Waste King Pulverators, enameled kitchen finish, electric bath heaters, door chimes and select oak floors. Sale prices had not been definitely determined, but it was stated that the two-bedroom homes were expected to sell for not more than $8,250; three-bedroom not over $8,950; and those on corner lots with fireplaces and breezeways, $9,650 or less.
Control switch
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G-E Flexible Steel Conduit
Here's an all-purpose raceway that has all the advantages of a cable method of wiring. Yet, in installed cost, it compares favorably with other raceway systems. Available in long, continuous lengths, in many standard sizes, it has the ability to stand up under the most severe operating conditions.

G-E flexible steel conduit is made of galvanized strip steel, which, if properly installed, provides an unbroken low-resistance path to ground. It requires no tools for bending or threading, and only a few simple fittings are necessary in its installation.

General Electric flexible steel conduit saves time and money — its smooth interior surface makes wire pulling easy. For information on “flex” check (D) in the coupon.

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Merely press the control switch On or Off while rotating the selector switch through all nine positions.

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Rammed-Earth Building
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MODERN Australian pise house built for Sydney, New South Wales, businessman. Portion of exterior, rendered in a stabilized earth composition devised by an engineer of the Commonwealth Experimental Building Station, has shown no signs of cracking.

MODERN homes are being built in Australia in one of the world’s oldest building materials—rammed-earth, or pise de terre. But the ingenuity of officers of the Australian Commonwealth Experimental Building Station has brought new methods to speed up the ancient craft.

Rammed-earth construction differs from adobe, another very old system of building, in that it consists of slightly moistened earth compacted into walls by tamping down inside a wooden frame, so that the whole building is “monolithic,” whereas adobe consists of puddled-earth bricks sun-dried, and built up brick by brick.

Pise buildings are in existence in all the states of Australia, but by far the most are in the largest state, New South Wales. The 1947 census showed 2,899 dwellings in existence in this material in Australia—2,320 of them in New South Wales.

Between 1933 and 1947 over 300 homes had been built in pise in the six States. More are being built now—one, at least, of modern design, in the outer Sydney suburb of Baulkham Hills. The local bowls club at Denistone, another Sydney suburb, has plans ready for the erection of a fine club house in this material.

Many of Australia’s rammed-earth buildings have been standing for decades. There is a church at Leeton, in the

(Continued on page 184)
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Oil-fired Conditionair—designed expressly for utility room or closet installations. Three sides of the unit are clear for flue outlet, controls, etc., for easy installation in recessed areas. Cold air may be returned at either side or at bottom of blower unit. Capacity 75,000 BTU's.

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The Series "S" oil-fired Boiler is perfectly suited for radiant heating systems—or conventional steam or hot water systems—in popular-size homes. The location of the oil burner and controls on the front of the unit makes it ideal for installations in restricted areas or utility rooms.

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Designed for the revolutionary new low cost, warm air-radiant "perimeter heating systems!" The Delco-Heat OPC-75HR is an oil-fired Conditionair in which air is forced downward over heat exchanger to be distributed from bottom of Conditionair. In "perimeter" systems, this provides both steady radiant heat and responsive forced warm air heat!

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Rammed-Earth Building...

(Continued from page 182)

Murrumbidgee River irrigation area, still in excellent condition after 40 years. Other buildings in various parts of Australia have been standing for nearly a century. Many farmers and building contractors who recently saw a demonstration of the method in inland New South Wales announced their intention of using it for future construction. Broken Hill, Cooma, Cooma, Junee and Temora in New South Wales, and Eltham, Victoria are among the centers where pisé is popular.

Earth as a building material has these advantages: it costs nothing, does not need to be transported to the site, requires less skilled labor in the work of construction than other materials, and provides a dwelling that is cool in summer and warm in winter.

Its worst foe, of course, is water, and apart from improving building methods, research at the Commonwealth Experimental Building Station has been concentrated on the treatment of the exteriors of earth-built houses to make them resistant to weather and to make the composition of the walls themselves more stable.

Experience has shown that most ordinary earths are suitable for pisé, or may be made so by admixture. The best consistency, however, is about 30 per cent of clay by loose volume (including silt and loam) and 70 per cent of sand (including gravel and other granular materials), with a moisture content of 7 to 9 per cent.

The reverse is the case with adobe construction, in which the clay content must preponderate, and the material to be made into the adobe bricks must be of the consistency of thick mud.

Binding of the material in pisé into strong, solid wall is brought about by the mechanical interlocking of the earth particles through compaction.

Chemical action and the pressure of thousands of tons of earth produced most of the world's rocks. The ramming of the earth used in pisé, plus a similar action, produces the approximation of soft stone which forms the monolithic building.

Information on rammed-earth construction is exchanged with India and South Africa by the Australian Commonwealth Experimental Building Station. The Station has also been aided in its researches by material from Britain, the United States and Russia, where extensive rebuilding of war-wrecked cities is being carried out in pisé. Correspondence on the method is carried out with tropical countries such as New Guinea. The Station is the centre.

(Continued on page 185)
doubly economical...

Truscon specialized formed-steel frame and sash construction builds high strength into these steel windows of pleasing design. This form of construction assures structural rigidity, and freedom from depreciation. Truscon Double-Hung Steel Windows have fingertip control with motor type spring balances, complete factory weatherstripping in stainless steel, solid bronze lever lift handles and sweep lock. And, of course, there are the traditional Truscon Steel Window features of no warping, sagging, binding or sticking. No rotting and necessary replacement. For residential and commercial use, in a wide range of types and sizes. Free illustrated literature on Truscon Series 138 Steel Windows on request.
What a Difference! After 2000 hours of continuous exposure to water, the CRYSTAL-treated panel is completely free of the waterlogged appearance and efflorescence so evident in the untreated panel.

This is an object lesson in what invisible CRYSTAL, with its amazing pore-filling action, can mean to the beauty and soundness of your buildings for a period, as accelerated weathering tests have proven, of many years, with just one application. Waterproof man made masonry and most natural stones with CRYSTAL.

Send for your free copy of “Exterior Masonry Waterproofing Manual”

G. F. MIDDLETON, in charge of pise research at the station, shows experimental wall sections used to test weathering. They stand on concrete bases, are capped with concrete to protect wall tops, and have been treated with a number of different substances of research in the British Empire on methods of building in hot climates.

Founded in 1944 by the Federal Department of Works and Housing the Station now has a staff of 60 which includes architects, engineers, physicists, model builders and experts in other sciences. It extends over 40 acres of bushland at Ryde, nine miles from Sydney. It advises Federal and State governments on building projects, and publishes periodical documents which are eagerly sought by those connected with the building industry.

For two years, G. F. Middleton, architect with the Station, has been concentrating on pise construction. A series of experimental walls has been erected in the grounds, capped with concrete to protect the wall tops, and the effects of weathering on walls of plain rammed-earth and of rammed-earth finished with various materials are being observed.

Experimental buildings have also been erected for tem-
Bilt-Well Products bring greater comforts to Indiana home owners at lower costs

Above picture shows a part of one of Indianapolis, Indiana's newest housing projects being equipped throughout with Superior Windows and other Bilt-Well Woodwork.

The General Contractors are Bohannon and Moore. Bilt-Well Woodwork is being furnished through Home Lumber Co., Danville, Ind., and supplied by Adams-Rogers, Indianapolis.

SUPERIOR WINDOWS SAVE TIME AND MONEY . . . they offer tremendous advantages in reducing building costs and in lowering maintenance expense.

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Rammed-Earth Building...
(Continued from page 186)

This process is repeated around the circuit of the wall to be built, and the partition walls as well. Then the form is erected on top of the built section, and the ramming goes on until the requisite height is reached.

Removal of the form from one section to another is effected by withdrawing the bolts which go through from side to side and dismantling the framework to be erected in position for the next section. This is difficult when the earth is rammed hard.

The Station has evolved a new type of form, the sides of which are retained in position by overhead clamps instead of through-bolts. Release of these clamps frees the sides of the form, which come away from the pisé without any trouble, and without leaving bolt-holes.

In addition, the new form is fitted with rollers to facilitate movement, without dismantling, from built to unbuilt section. One roller moves along the foundation or previously completed level of the wall, the other, at a higher point, moves along the top of the section from which the form is being released.

Because of these rollers, it has been named the "crawler-form." It produces a wall section 5 feet long and 15 inches high, compared with the 6 feet by 30 inches of the traditional form; but in tests the new form took one man eight minutes to change its position, compared with the 1½ hours which it took three men to dismantle and re-erect the traditional form.

The second invention to speed up building was a mechanical rammer to replace the manual rammer which has been used by pisé builders from time immemorial.

The basis for the new equipment was a pneumatic tamper designed originally to compact backfill for trenches, or tamp sand into moulds for heavy foundry work. It weighed 25 pounds, had a flat-faced circular, 2 pound hammerhead of aluminum, 3 inches in diameter.

At the Station the tamper was adapted by fitting instead a 10 pound flat-faced hammerhead 6 inches square. Rods were fitted to prevent rotation of the head; piston speed and pressure were reduced to the needs of its new task. The redesigned implement weighed 31 pounds.

Three men were put on each of two jobs of building test walls, one group with a manual tamper, the other with a pneumatic machine. The manual operators took three hours to build their walls, the pneumatic operators only 1½ hours. A production speed of 13 cubic feet a man-hour was attained.

Investigations showed that the mechanical rammer gave a wall of increased strength, produced a pisé of greater regularity and finer texture, and compacted it more densely.

For the guidance of the many inquirers about building in pisé, Middleton has published for the Station an interim report embodying information from British and American sources, supplemented by the Station's own experiments and information gained in areas of Australia where pisé building flourished.

"It will be seen," he writes, "that the rules followed are of the rule-of-thumb type developed over the years by trial, error and experience.

"The effort will be made by the Station to develop soundly based rules capable of wide application for the choice and testing of soils and mixes and the determination of suitable water content.

The booklet contains many practical points of guidance, and quotes practices which have grown up in Australian pisé centers.

In Corowa, for example, builders keep window and door...."
When you plan radiant heating installations, remember that Chase Copper Tube can be installed easily, economically. Its light weight simplifies the handling of the long coils. Its small diameter adapts it perfectly to ceiling installation in the normal plaster depth.

And... Chase Copper Tube is available for immediate delivery!

Coils of 60 and 100 foot lengths that eliminate extra connections—flexible, small-diameter tube that bends easily without special tools—solder-joint fittings that make tight joints... these are just a few of the reasons why builders all over the country are turning to Chase Copper Tube for their radiant heating installations.

Chase Copper Tube goes into still another group of homes!

The installation shown is in a group of 50 homes in the East. (Name furnished on request) Chase Copper Tube was supplied by Mayer Mohlin Co., Inc., Long Island City, N.Y.

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heads at the same level, and construct a continuous reinforced concrete lintel completely round the building. To protect exterior walls, they "key" cement mortar rendering by scoring vertical and horizontal lines 6 inches apart all over the surface, sink conical holes at the intersections of these lines, then drive spring-head roofing nails into the holes until the heads are level with the wall surface. The plaster is forced behind these nail-heads when the wall is being rendered.

These are local practices. The report also lists many helpful points of guidance on pise building generally, such as footings for the walls, width of the eaves, pitch of the roof, rendering materials.

Reinforced concrete strip footings are recommended as a base on which to build the walls. These should be carried up to a minimum of 9 inches above ground level to protect the wall against erosion by storm-water and rainsplash, and even higher where rainfall is exceptionally heavy and flooding is possible.

Walls should be 12 inches thick except for very large buildings and should be set on flexible damp-proof courses and capped with a moisture-resistant covering such as an inch-thick layer of Portland cement mortar before the wall plates are placed in position. Lintels should be of reinforced concrete with a bearing surface of at least 9 inches on either side of the openings.

Under ideal circumstances, a good pise wall, when hardened and matured becomes harder with age and some pise walls have survived centuries of exposure. But the risk of damage for lack of an inexpensive waterproof coating is not worth while when there are inexpensive ways of rendering the exterior to protect it from water.

Cement mortar rendering is satisfactory, provided that it is keyed well to the wall. A cheaper method is to paint it with clear raw linseed oil or thin paint, brushed well in at a rate of a gallon to 100 square feet. Three days later a priming coat of ordinary house paint is applied, three quarts to 100 square feet.

Farm buildings, it is suggested, might be treated more economically with hot tar, a hot asphaltic-based solution, or cold bituminous emulsion. Lime washes, cement washes, lime tallow, waterbound paints and similar coatings are not suitable for exteriors because they do not give sufficient protection against moisture penetration.

Traditional pitched roof design is usual in Australia for pise structures, except that eaves are made wider—3 feet to 3 feet, 6 inches—to give protection to the walls. Boxed eaves with ventilation in the soffit are recommended.

With such wide eaves, says the report, it is desirable to keep the roof pitch as low as possible, lest the eaves project too far down the face of the building and interfere with the natural lighting of the room.

The modern home at Baulkham Hills, already referred to, has been built with a flat roof; but here, too, a wide projection has been made to protect the walls.

**Plumbing Indoors 50 Years**

Although the prototype of the modern enameled cast iron bathtub was first made around 1870, the really significant progress in the plumbing industry has been made since 1900, the Plumbing and Heating Industries Bureau said in reviewing a half century of evolution in the plumbing industry. It was only in the last 50 years, the Bureau pointed out, that plumbing has moved indoors and the bathroom has won acceptance as an essential feature of a modern dwelling unit.
QUALITY THAT WINS DEMAND... CHAMPION Homes withstand all climatic conditions because of rugged construction and quality-tested materials! They are available in 3 sizes and 30 attractive designs, which supply architectural variation in large group developments! The enthusiastic demand of Homebuyers across the nation means CHAMPION Homes bring SALES TO YOU!

QUICK, EASY ERECTION... Expertly engineered, CHAMPION Homes can be erected and under roof in one day! Interim financing is available to responsible Gunnison Dealers! Orders are shipped by truck up to 350 miles or by freight (2 in a car) to any point in the United States. This simplified and speedy building method means CHAMPION Homes earn more PROFIT FOR YOU!

CHAMPION Homes are designed to take advantage of the Economy Home Program and answer the needs of families earning $50 a week or more. The recent letter on the left from one of the nation’s leading Home Financing Associations is a positive-proof of Homebuyer, Mortgage Banker and Builder satisfaction! The Franchise in your area may be available. Write Dept. A-1 for information.

Wherever There's Better Living...
Month after month
more builders profit
by choosing

"Quality Approved"

ALUMINUM

double-hung    casement

Look for this "quality seal"
Have you noticed that home-buyers are becoming more and more “choosy” these days? More value and quality conscious?

Good reason for you to be that way yourself—especially when selecting windows!

Every day more builders are finding that when you select Quality-Approved aluminum windows there’s no question of quality. You know it’s there—built in!

More important, your customers will know it! And they’ll like the fact that you’re a builder who takes no short cuts on window quality.

The “Quality-Approved” Seal on your windows means minimum air infiltration, strong sections, sound construction, good materials. There will be no painting, no rust, no sticking or warping for the life of the window!

But this bright red seal means more than that! Hundreds of builders can tell you it means sales appeal! Try it on your next job and see for yourself.

You can get these windows in all standard types for all types of building. You can get all the facts from any Association member, from Sweet’s Builders’ File (Section 3c/1a) or by writing to Dept. A.
INDUSTRY BRIEFS

C. H. FOULDS, Perfection Stove Co. vice president in charge of sales, has announced a revamping of the firm's sales division, with two major shifts in personnel. Named general sales manager is Leslie Bushfield, for the past year sales manager of the range and heater division. HERBERT C. ERHARD, who has headed the Acorn-Oriole sales division since it was acquired by Perfection last year, replaces Bushfield as sales manager in charge of ranges and heaters. The Acorn-Oriole division will be integrated with the Perfection range and heater division.

Allied Building Credits, Inc., has opened a new branch office in Omaha, Neb., R. A. Peterson, president, announced recently. Named as manager of the new unit is E. E. Nelson, formerly of the Salt Lake City branch. Nelson has been affiliated with the firm since 1940, except for a period of service in the armed forces.

Two organizational changes in the Kimberly-Clark Corp., Neenah, Wis., were announced recently by the firm's sales vice president, John R. Kimberly. A. G. Sharp has been named general sales manager and J. B. Catlin, general merchandising manager. Sharp also acts as assistant to the vice president. Each has been associated with the corporation since 1930.

Three new appointments have been made by the Insulite Division of Minnesota and Ontario Paper Co., M. C. Fairfield, Insulite sales manager, has reported. Named sales representatives were: central Indiana, Garth R. Marine; Montana, northern Wyoming and the western section of North and South Dakota, Chester B. Knapp, Jr. O. G. "Ollie" Norbeck has the territory in North Dakota and northwestern Minnesota.

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BUILDING CONTRACTS!

Your big-profit building contracts are right at your finger-tips when you use DODGE REPORTS. You are told WHERE to go . . . WHO to see . . . WHAT to talk about to get these jobs! And you can have this information for any area you specify, any type of construction, or any stage of the construction work.

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new apartment buildings, banks, hospitals, schools, churches, theaters, homes, factories

—in fact, every type of new construction offering you profitable job opportunities.

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they teach
LOGOPEDICS...

but first they studied TITE-ONS**

* * the amazingly wind-resistant
Ruberoid interlocking shingle

On the rolling plains of Kansas where the wind blows free and the ominous black tail of a twister occasionally makes an appearance, it pays to invest in a roof that will hang on for dear life. The Institute of Logopedics wisely selected Ruberoid Dubl-Coverage Tite-On Shingles to protect its fine new $2,000,000 speech correction center covering 40 acres on the outskirts of Wichita.

Tite-Ons were specified for the Institute by Builder's, Inc. . . but Tite-Ons really sold themselves! Mr. J. R. Mollohan, manager of the Rock Island Lumber Co. first sold Dubl-Coverage Tite-Ons to Builder's, Inc. for several Four-Plexs in Southeast Wichita. In June, 1947, these roofs were put to a severe test when Wichita had a very heavy windstorm that ripped up other roofs but failed to disturb Tite-Ons. Besides providing the utmost in storm protection, self-locking Tite-On Shingles are fire-resistant, attractive and provide a minimum of two thicknesses over the entire roof.

Specify RUBEROID DUBL-COVERAGE TITE-ON SHINGLES
FOR YOUR OWN PROTECTION AND CUSTOMER SATISFACTION

The RUBEROID Co.

BUILDING MATERIALS FOR HOME, FARM AND INDUSTRY

MAY 1930
BOOK REVIEW

A quick glance over book publishers' current lists indicates that there are today several hundred books on the market that in one way or another deal with the broad and fascinating subject of electricity. There are, in fact, just too many books on electricity, no matter how fascinating they are, for the average builder, contractor or carpenter to be able to judge intelligently just which one of these hundreds of volumes best suits his particular needs. As one way out of this dilemma, we would like to recommend a couple of popular titles, both of which are on the slim line, that have met with wide approval in the building trades. They seem to supply just the electrical information that the average builder is looking for.

INTERIOR ELECTRIC WIRING AND ESTIMATING

First published a number of years ago, but today in its third up-to-date edition, this book is an old stand-by that has proved its worth beyond dispute. It is our guess that what builders like best about it is its easily understandable "how-to-do-it" style that simplifies the problems of house wiring and estimating not only for the builder but also for the more experienced craftsman. Contractors especially will profit from that section of the book that tells how properly to estimate the labor and materials that will go into a house wiring job.

Other useful chapters contain a wealth of practical information on service wiring; knob and tube wiring; cable wiring; conduit wiring materials, tools, methods; and apartment and factory building wiring. All of which combine to make this book a fine text and ready reference book which we feel a builder can rely on with confidence.

WESTINGHOUSE HOME WIRING HANDBOOK

It might be suggested that the company that publishes this little 134-page work on the fundamentals of electrical wiring has something more than a detached interest in the subject. The obvious answer is that if other suppliers went to the same pains to provide useful information to builders and consumers in the same handy fashion that the Westinghouse people have there is no question that both the companies and the users of their products would benefit considerably.

Here in eleven short chapters is excellent data on electrical equipment, outlets, circuits, control centers, circuit protection, communication systems that include signals, telephone and radio, specifications, estimating costs, terminology and tables together with a clear explanation of the company's own four degrees of electrification which gives the builder a quick means of selecting a system of wiring that will satisfy a given installation.

This book is not an all-inclusive treatise on the subject of wiring nor is it intended to be. Rather it is a thoroughly useful guide for planning wiring of popular-priced homes, which is just the kind of information that most builders are looking for.

ESTIMATING

1. THE BUILDING ESTIMATOR'S REFERENCE BOOK and Vest Pocket Estimator (not sold separately). By Frank B. Walker. Contains latest estimating and cost data on everything that goes into house construction. Most complete compilation of estimating and cost data available. $10.00.

2. THE BUILDING COST CALCULATOR. By John R. Smith. A system for arriving at building construction cost by use of schedules giving cost of standard units of construction at varying costs of labor and materials. $10.50.

3. SIMPLIFIED CARPENTRY ESTIMATING. By J. W. Wilson and Clell M. Rogers. Everything needed to "take-off" a bill of materials from set of plans and specifications for a frame house—with many helpful quick-reference tables and short-cut methods that simplify the work. $2.30.

4. THE BUILDING TRADES HANDBOOK. Ready reference on building subjects—mathematics, architectural drawing, structural design, materials and methods. $1.75.

5. CONTRACTOR'S MATERIAL LIST. A 10-column take-off form for complete listing of materials and labor costs. $1.00.

6. SPECIFICATIONS. Full set of detailed house specifications and index. With spaces for inserting the pertinent descriptive data. $1.50.

CARPENTRY AND BUILDING


8. HOUSE CARPENTRY AND JOINERY. By Nelson L. Burbank. Every step of carpentry in and around a house, clearly explained and illustrated. Covers every job from foundation forms to interior trim. $5.00.


THE STEEL SQUARE

10. STEEL SQUARE POCKET BOOK. By Dwight L. Stoddard. Illustrated and worked-out problems of laying out common rafters, hipped, octagonal, hexagonal, and circular roofs, roots of uneven pitch, and curved roots. $1.25.


13. STAIR BUILDING. By Gilbert Townsend. S.B. Fully illustrated explanation of every problem in design and construction of stairs. $2.50.
AMERICAS BEST SMALL HOUSES. Exterior and interior views, floor plan sketches, material specifications and descriptions of 40 new low-cost homes. $3.95.

HOUSES FOR GOOD LIVING. By Royal Barry Wills. A.I.A. Photographs and floor plans of 34 fine homes by a leading architect. $4.00.

SUNSET WESTERN RANCH HOUSES. Authoritative book on the California ranch house, with thorough pictorial descriptions and ground floor and site drawings. $3.25.

DUPLEX AND APARTMENT HOUSES. By J. W. Lindstrom. Floor plan sketches and brief descriptions of 35 duplexes, 114 apartment buildings, and 8 larger ones ranging from 6 to 12 apartments. One-bay footage given. $1.00.

CAMS AND COTTAGES. How to Build Them. By Charles D. White. Complete, tested plans and instructions for building cottages, camps, and guest houses. More than 100 detail drawings. $3.50.

PREMIER BOOK OF GARAGE PLANS. Full-scale complete working blueprints, and pictures of one and two-car garages. $5.00.

HEATING AND PLUMBING

MODERN METHODS OF HOME HEATING. Standard heating systems illustrated with 17 floor plans showing heating outlets, 60 photos of equipment and installations, 25 boiler and piping connection diagrams, and 11 heat loss calculating tables. $5.00.

RADIANT HEATING. By T. A. Adkins. A practical guide to design and installation of radiant heating, snow melting, and radiant cooling systems together with step-by-step procedures. $6.00.

HOW TO DESIGN AND INSTALL PLUMBING. By A. J. Matthews, Jr. Every step in the design and installation of the plumbing system, to fulfill requirements indicated in blueprints and specifications, explained and illustrated. $2.50.

PAINTING AND DECORATING

PRICE GUIDE FOR PAINTERS AND DECORATORS. Tables covering practically every type of work done by the painter and decorator, with suggested prices based on various wage scales. $1.25.

PAINTING AND DECORATING CRAFTSMAN'S MANUAL. Sponsored by the Painting and Decorating Contractors of America. $3.00.

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25. HANDBOOK OF BRICK MASONRY CONSTRUCTION. By John A. Nolliger. For masons, contractors, estimators and construction engineers. $5.50.

26. MASONRY SIMPLIFIED. Vol. I. By J. Ralph Dalessi and Gilbert Townsend. Complete explanation of the tools, materials, and practices of masonry including blueprint reading, use of concrete block, clay tile and brick, building masonry sidewalks, driveways, floors, and steps. $4.50.

27. MASONRY SIMPLIFIED. Vol. II. Practical masonry procedures in the various phases of construction. From building forms to constructing fireplaces and septic tanks. Discusses the selection and handling of new products such as glass blocks, waterproofing mixtures and insulating blocks. $6.00.

ELECTRIC WIRING


29. WESTINGHOUSE HOME WIRING HANDBOOK. By A. Cost Bredahl. A guide for planning the wiring of moderately-priced homes, with emphasis on safety, effectiveness and efficiency. $1.00.

MISCELLANEOUS

30. HOME BUILDERS MANUAL FOR CONTRACTORS. Provides convenient data and check lists to follow all operations connected with construction of a home. Looseleaf binder permits additions of special material pertaining to project being constructed. $4.00.

31. PRACTICAL ACCOUNTING AND COST KEEPING FOR CONTRACTORS. Complete instructions and examples showing proper methods of keeping time and compiling costs on all classes of construction work. $3.00.

32. BOOK OF SUCCESSFUL FIREPLACES. Best available book on how to construct indoor and outdoor fireplaces. $5.00.

33. THE MECHANICAL PROPERTIES OF WOOD. By Frederick F. Wappler. Full information on timber mechanics and engineering. Contains valuable stress tables for more than 150 American woods. $8.00.

34. LUMBER DATA. Lefax Data Sheets. Handy pocket-sized handbook containing all kinds of important data having to do with lumber and timber. $1.00.

BLUETOOTH PLANES

35. BLUETOOTH PLANS. Contains 11 complete blueprints of modern small homes designed by leading architects. Also descriptions and floor plans of 9 other houses. 7 pages, sketches of built-in equipment. $1.00.

Your copy sent FREE if your Order totals $1.00 or more. Use coupon below—mail today.

MAY 1950
To Satisfy Buyers...

FAN-PLAN
with EMERSON-ELECTRIC
Attic Fans

There's no mistaking the trend! Dependable, nationally advertised Emerson-Electric Attic Fans have proved themselves the effective, economical answer to the problem of summer comfort in the home! Fan-planning becomes a real reputation-builder for you... because the benefits are so obvious that your clients are quick to "spread the word." And remember, you save them half on installation costs, by installing an Emerson-Electric Attic Fan during original construction.

Emerson-Electric's complete line of Home Cooler Fans and accessories lets you select exactly what you need... assures unmatched performance, backed by 60 years of fan manufacturing experience. For complete data, refer to 1950 Sweet's Builders' or Architectural Files, or write for Bulletin No. 407.

The Emerson Electric Mfg. Co., St. Louis 21, Mo.

EMERSON ELECTRIC
MOTORS - FANS - APPLIANCES

Low Upkeep...

(Continued from page 158)

at rear, and in constructing the kitchen cabinets. Two 1 1/2-inch meat cutting boards are installed in the kitchen cabinet countertops which are Formica, as is the backpaneling above them.

A special cabinet next to the range in the kitchen encloses a serving cart. The underside of the cabinet above it holds a folding knife rack operating on friction hinges.

The china cabinet separating the kitchen and dining areas loads from both sides, as does the lower section, including the silverware drawers. Both kitchen and dining rooms are illuminated with flush fluorescent ceiling fixtures. The refectory table in the dining room was also built in the owner's mill.

The paneling in the walls and in the ceiling of the front porch are cypress as are the cabinets which are built into each side of the fireplace.

FIELDSTONE fireplace has oak mantel

GRILL cabinet shelves are heatproof stone

One is a wood bin serving both the living room and the porch. The second outer cabinet encloses three drawers each on the porch side and on the living room side.

The living room fireplace is equipped with a Heatilator. The porch unit has a Handcock grill installed in it. The extended cabinet shelves and mantel of the porch fireplace are of flagstone so that hot things

(Continued on page 200)
Notice how more folks notice heating more?

She had been impressed by the modern kitchen. He had grinned as he surveyed the spacious recreation room. But, it was when both eyed the Bryant automatic gas heating installation that they knew this was their house...a quality home throughout!

In most every part of the land, there's growing excitement about automatic gas heating. It is the blooming of an idea which Bryant planted nearly a half century ago with installation of the first home heating truly designed to "let the pup be furnace man!"

Four modern factories now hum day and night to supply the demand for this famous equipment. Fifty distributors and thousands of dealers offer Bryant products in a selection unmatched by any other single brand.

Bet your bottom dollar that Americans want the best in automatic gas heating...the kind you give them when you specify or install equipment bearing the Bryant nameplate.

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The most complete line of gas heating equipment in the nation

Bryant Heating, Dept. 112,
1760 N. Clare, Cleveland, Ohio

Send me the new booklet that tells the Bryant story. ( ) Have your distributor call on me.

Name

Company

Address

City State
SPRINTLY furnishings in green and yellow harmonize with warm tones of maple panels and rugs may be placed on them. Maple cutting boards are also set into this mantle. The living room mantle is solid oak, 2 1/2 by 14 inches and 13 feet, 4 inches long.

As an inspection of the photographs and plans reveals, ceiling cabinets are numerous in this home. They are used in the utility room which also has a

Low Upkeep...

(Continued from page 198)

Its higher amperage rating under the National Electrical Code affords greater current carrying capacity.

Smaller conductors, smaller sizes of conduit and fittings, and lower labor cost—all are available to you by proper application of Paranite Para-therm (Type RH) Wire and Cables.

All Paranite products are made under the watchful eye of S. Q. C.—Statistical Quality Control.

Both porches are screened and equipped with canvas covering that can be lowered instantly during inclement weather.

Furnishings in the living room are in colorful green, white and yellow. The kitchen is decorated with canary yellow. The wood panels were finished with a 30-30 white shellac solution, sanded, coated a second time, sanded and rubbed with steel wool to remove highlights, and finally coated with butcher’s wax.

The floor of this house is slab concrete, 4 inches thick, poured over a 4-inch slab of zonolite-cement mix. Two coats of Armstrong’s asphalt cement, saturating a layer of 30-pound felt, bind the asphalt tile to the concrete floor. Four inches of zonolite also furnish insulation in the ceiling, finished in 16 by 32-inch NuWood panels.

A Coleman oil burning floor furnace with thermostat controls, installed in the living room, heats the house.

The plans were executed by the National Plan Service, Inc. Gail H. Cole aided in designing the fireplace, bedroom, and kitchen. The builder was Vernon Barnes, Elkhorn, Mich., who used general materials furnished by the Morrison Lumber Company.
EARLY AMERICAN

Hardware

and Lighting

Fixtures

The Finishing Touch of Quality for
Colonial, Ranch Houses, Game Rooms

Old Guilford Forge reproduction hardware and Early American lighting fixtures are now available to builders for use in homes where the "touch of distinction" is required. Not just another black iron line, Old Guilford Forge offers a complete complement of faithfully hand-reproduced hardware, with lighting fixtures in pewter, brass and wrought iron to match.

Despite their quality, Old Guilford Forge reproductions are sensibly priced - well within the budget of the moderate cost home. Custom work in ornamental iron and hardware is invited. Write for quotations.

Write for Illustrated Catalogue

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Guilford, Connecticut

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OR CLOSET DAMP?

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清除 moisture-the name of rust, warping, mold in workshops, darkrooms, clubs, playrooms, storage rooms, walls. Built-in last for years. Big capacity. Works fast; absorbs up to 1/2 quarts per day. Compact, inexpensive, clean, safe, effective. Thousands in use. Write for book and name of your nearest dealer.

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The Pearson Cutter is a perfect tool for Asbestos Applications, Contractors, Linoleum Dealers. Single to operate either vertically or horizontally. Cuts clean and fast on 1/16" asbestos sheets or asbestos and roofing materials. Standup-built; weights 4½ lbs., 34 inches long, has reach for shingles. Cutting blade and wearing parts of tempered steel. FULLY GUARANTEED.

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Send your order to

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Lake Villa 2

ILLINOIS

MAY 1950

How to install the NEW CHROMTRIM fold-down type sink frame...

Align CHROMTRIM sink frame over opening. Embed it in Werner waterproof adhesive and screw down permanently. Frames are pre-drilled with countersink holes. Use screws supplied.

Fold down lip over material, starting with wood block and hammer. Continue with black and hand pressure until adhesive squeezes out at edges. Clean off excess adhesive immediately.

CHROMTRIM preformed, fold-down frames are available in 13 popular sizes. Fold-down lip grips all covering materials and makes tight waterproof joint on plastics, linoleum, etc. from 1/16 in. to 1/8 in. thick. Available with square back or tapered flanges. For extra beauty, finish outer edges of sink top with CHROMTRIM fold-down underface nosing.

How to form your own sink frames on the job

Use CHROMTRIM straight face nosing, edging or fold-down type nosing. Slit the flange or underface shapes as shown, to form rounded corners. Saw one slit only for square corners. Write in for complete information.

A complete line of over 200 metal mouldings, aluminium, some stainless steel. There's a CHROMTRIM shape for every need. See your distributor.

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ALUMINUM—STAINLESS STEEL

Easy to Buy—Easy to Apply

R. D. WERNER CO., Inc., 295 Fifth Avenue, New York 1, N. Y.

In Canada: R. D. Werner Co., Ltd., Oshawa, Ont.
$600,000 'Park and Shop' Center
Being Built in Chicago Subdivision

Construction was started recently on the first unit of a $600,000 "Park and Shop" commercial center with parking space for 400 cars in the Merrionette Manor development on Chicago's south side.

The shopping center will be the final unit in the four-year postwar development of the 542-unit duplex project by the J. E. Merrion Co. of Chicago. The subdivision was named a national winner in the 1949 NAHB land planning competition. Merrion said that the center, scheduled for completion next September, will be the first completely integrated and planned "Park and Shop" unit in the city.

The development will ultimately include a chain department store, a large food mart, bakery, drug store, variety store, hardware, dress, shoe and other shops and gas station facilities. A feature of the initial unit will be a completely air-conditioned medical center with 11 suites.

Buildings for the commercial unit were designed by Raymond P. Gregori, architect. Site plans were prepared by William A. Dean, town planner.

Approximately 38,000 persons live within a two-mile radius of the shopping center. In addition, it is set back from and faces 95th St., a heavily-traveled arterial highway.

Participating in the ground-breaking ceremonies were Harley V. McNamara, president of the National Tea Co., which has signed a 10-year lease for a food mart; Alderman Emil V. Pacini of Chicago; and Teresa Giorgan, Miss Chicago of 1949; Raymond Gregori, architect; John Newberg. Merrion Co. construction superintendent; and William A. Dean, site planner. "Miss Chicago" spurred the first earth
EASY TO INSTALL

NO RUST—NO STAIN

Round headed screw installed in top blind stop holds removable top bar bracket.

Catch at sill engages sill flange. Note that flange is easily adjusted for proper tension.

No Screen Frames to Make or Fit • No Painting • No Outside Hardware

KEYSTONE WIRE CLOTH CO.,

GET MORE TILE SALES THROUGH RENTAL CUTTERS

Now Tile Dealers can give a complete rental service on tile cutters, can identify their stores with J. M. J. Tile Cutter Rental Service and increase their floor traffic. Over a year of actual testing at the retail level proves large sales increase due to rental cutters.

PROFIT FROM RENTAL

In field test, the J. M. J. Rental Cutter was out 90 per cent of the time. The J. M. J. Rental Plan outlines how you can profit from this demand.

HELPS CUSTOMERS

The J. M. J. Rental Cutter makes it simple for the customer to do an accurate and easy job of home tile laying. It helps the dealer show the customer how to do it.

CLINCHES SALES

Free use of the J. M. J. Rental Cutter helps to clinch sales. Goodwill can be increased by including free use of the cutter where the purchase warrants it.
New right angle drive provides three speeds for Milwaukee drill

speed 50 per cent in one position and reduces the speed 44 per cent when this position is reversed. The drive fits six Milwaukee drills, models S-214, S-256, S-238, BF-312 (some exceptions), S-412, and S-212.

A special tri-speed kit is being marketed by the Milwaukee Electric Tool Corporation for contractors. The basic drill in this kit is the S-412 with a 3/8-inch chuck capacity and powered by a 115 volt, AC-DC, 60-cycle, 3/4 horsepower motor. The three speeds offered are 300, 450, and 675 rpm; 450 rpm being the speed of the basic drill. The variety of speeds makes the unit adaptable for drilling large or small holes in wood, ceramic, sheet metal, glass, and stone compositions.

The angle head is clamped to the electric drill with a sleeve, forming a solid, single unit. The drill and the angle head spindles accommodate any 3/8-inch-20 threaded Jacobs chuck or threaded bits. A sturdy side handle can be adjusted for right or left hand operation, or removed. Its 360 degree adjustment permits attachment anywhere on the exposed collar of the drill or on the right angle drive.

Turbine fans provide controlled ventilation throughout the aluminum housing of the drill. The triple gear train increases torque and protects the motor against overload. Ball and roller bearings reduce wear to a minimum.

CONVENIENT handles and special bit of RAD drill aid installing insulation in old home.

WITH right angle drive in low position, electrician drills holes in difficult spot for installation of electrical conduit.

A new addition to the power tool field is a three-speed, right angle electric drill, manufactured by the Milwaukee Electric Tool Corp., and designed for drilling around corners, pipes, conduits, and other obstructions—and between 12-inch center joints.

The unit consists of a standard drill with a right angle drive attachment. This drive houses a versatile, integrated gear unit that boosts the chuck speed 50 per cent in one position and reduces the speed 44 per cent when this position is reversed. The drive fits six Milwaukee drills, models S-214, S-256, S-238, BF-312 (some exceptions), S-412, and S-212.

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CONVENIENT handles and special bit of RAD drill aid installing insulation in old home.

THE BOSTWICK STEEL LATH COMPANY
169 HEATON AVENUE - NILES, OHIO

304 AMERICAN BUILDER
The SOLD sign goes up faster... when your homes are equipped with

**Apex DISH-A-MATIC**

The ONLY Automatic Dishwasher that SUPER-HEATS its own water!

Home buyers know the DISH-A-MATIC as the only automatic dishwasher that SUPER-HEATS its own water. And you will be surprised how many are acquainted with the many other outstanding features of this automatic wonder that silently washes, rinses and dries a service for six, sparkling clean in 30 minutes or less. If you are not already employing this important aid to quicker, easier home sales... send coupon below for detailed specifications and special discounts or contact the Apex distributor near you.

**The Peak of Quality for 37 Years**

Apex HOUR-SAVING APPLIANCES

---

THE APEX ELECTRICAL MANUFACTURING COMPANY • CLEVELAND 10, OHIO

MAY 1950
Kohler Co. Remodels
New York Showroom

The Kohler Co. showroom, Long Island, New York, has recently been remodeled to include the latest developments in decoration and plan, with backgrounds built to simulate the walls and floor of bathrooms and washrooms. Each setting has been studied to offer a practical and interesting selection of background colors.

The showroom contains eight displays of bathroom and washroom sets in various price brackets. Four of the sets show fixtures in special Kohler colors—peachbloom, spruce green, tuscan and cerulean blue. The remainder are in white with backgrounds in color.

On the balcony level is a display of Kohler enameled sinks on metal cabinets. These range in size from the large Wabash with two basins and two drainboards to the single basin lodge-type Deafiey. Boilers for home heating and electric plants for independent electric service are also exhibited on the balcony.

A section is provided where visitors may confer with architects and plumbing contractors. The showroom also houses the office staff of Kohler’s New York branch.

Expand Facilities for Fabricating Log Buildings

Production capacity of the Brownlee Co. of Detroit, manufacturers of partially fabricated sectional log cabins, homes, camp and commercial buildings, has been doubled through expansion of three plants in Michigan, according to an announcement by the president, W. G. Brownlee.

Expansion of the Brownlee cabin and building division started late in 1948 with the purchase of two plants in Milan, Mich. These plants have been completely modernized and new facilities have been added near Houghton, Mich., where the firm has its own timber tracts, saw mill and log plant.

The Brownlee line consists of a number of standard designs, starting with a 16x20-foot “Sportsman’s Cabin” and including seven larger cabins and homes, commercial and club buildings and complete tourist and motor courts. All are built of white cedar logs, sawn through the center and factory-construction in sections with doors and windows included. Knotty pine or other paneling interiors may be combined with the rustic exteriors.

In the design, half logs are deeply grooved to receive splines which join them in vertical panels.
You can really

DO THINGS

with this versatile

HARDWOOD PLYWOOD!

Here at last is a genuine hardwood plywood, free from the disadvantages of soft woods, yet attractive in price. It is ideal for dry-wall construction, built-in cabinets, furniture, partitions, store fixtures, etc.

Mengelbord® is a low-priced utility hardwood plywood available in standard stock panel sizes 1/4" thick, 3-ply. It is moisture resistant—recommended for a wide variety of interior uses.

Mengelbord has a one-piece face with no joints or oval patches. It is made from beautiful unselected White Gum (Tapelo) with the face grain running the long way of the panel for greater strength and better decorative effects.

It is smoothly sanded, free from grain-raising, warp-resistant, and works cleanly.

Mengelbord is light in color and suitable for a variety of finishes—paint, stain, natural, or as a base for wallpaper.

Write today for samples and descriptive literature. No obligation, of course.

Where fine wood panels of Mahogany, Oak, Birch or Walnut are desired—as Mengelbord—Literature on request.

Plywood Division, The Mengel Co., Louisville, Ky.

BUILDERS!

CONTRACTORS!

COMPLETE NEW HOME PLANS

Have the advantage of perspective drawings and floor plans to show future homebuilders. Give your clients the opportunity to choose from these latest design plan books. Plans utilize builders' newest cost cutting and latest construction methods. Complete working blueprints of 200 FHA approved homes are available.

Wide variety of contemporary and traditional designs styled for comfort, beauty and convenience. Includes starter homes, four- to ten-room home sizes—in ranch styles, modern design, Cape Cod and duplex plans.

Order 2 books for only $2.00 (one book for frame and one for block masonry construction). Then when you order your first set of working blueprints—a blueprint included in set—$25.00 for frame construction, $35.00 for block construction—your original $2.00 investment will be credited to your order. Order books today—let these amazing plan books sell home contracts for you.

HOME BUILDING PLAN SERVICE
2454 Z E Sandy Boulevard
PORTLAND 12, OREGON

ARCHITECT'S drawing of new McDonald offices and warehouse

NEW Suburban Building
Solves Expansion Problem

Lack of expansion facilities and parking space in downtown building prompt Joplin, Mo., wholesaler to construct modern plant at city's edge

A YEAR ago when the A. Y. McDonald Manufacturing Co., Joplin, Mo., found itself in a situation familiar to many wholesalers located in downtown districts—insufficient expansion room and a parking problem as well—they solved the problem by erecting a large new building on the city's outskirts.

The new plant, which contains a spacious showroom and a warehouse with more than 35,000 square feet of usable space, is located just off a trunk highway, has a railroad spur on the property and provides parking space for nearly 100 cars and trucks.

The showroom features bathroom and kitchen fixtures in homelike settings and serves as a planning center to which dealers are invited to bring customers who are building or remodeling.

The large warehouse space permits adequate storage of complete distributor's stocks, including power pumps, water supply systems, plumbing supplies, heating materials, mill supplies, building materials and farm and home equipment. In addition, it provides docking facilities for trucks of all sizes.

An open house and manufacturer's exhibit was held recently, which was attended by dealers, their families and customers.
Cuts Cost of Installing Automatic Gas Heat...

4 popular sizes...
40,000, 60,000, 80,000 and 100,000 BTU
10 Year Written Guarantee
Burns natural, mixed, manufactured and LP gas.

Pictured here is one of 82 homes built by C. B. Kelley & Co., Nashville, Tenn. Mr. C. B. Kelley, prominent builder, says: "We used 30 Norman Southerners in our Pleasant Valley sub-division last year. We are also using this equipment in our new Dunconwood sub-division of 52 homes.

"Our customers like the extra comfort and convenience offered by the carefree, automatic operation of the Southerner... We are particularly pleased with the compactness of design which enables the Southerner to fit in so well with our building program."

This flexible, compact Norman Southerner fits in attic, under floor or basement, in utility room or closet. No floor space needed. Requires less duct work, takes less time and labor to install

Get the facts today on how to boost competition through low cost installation in new single and multi-unit home construction. Send for new folder "This Compact Forced Air Central Heating System Saves Valuable, Costly Floor Space."

Norman SOUtherner
Horizontally Designed Forced Air Gas Furnaces

NORMAN PRODUCTS COMPANY • DEPT. 32 • 1146 CHESAPEAKE AVENUE • COLUMBUS 12, OHIO
MANUFACTURERS OF GAS AND GAS-OIL FURNACES AND CONVERSION BURNERS

COMING SOON!

Watch for Big Kwikset Announcement
COMING SOON!

.savefig(144,673,314,854)
Colorado Lumber Dealer Doubles Business in One Year

New building for Scatterday company follows expansion

Above: Right, the first office and warehouse of the Scatterday Lumber Company that now occupies the ground floor of new building above.

Business of the Scatterday Lumber Company, 9605 West Colfax Ave., Lakewood, Colorado, increased 100 per cent during the year ending in mid-1949. This increase, ample assurance of continued success, led to the expansion of the lumber company and construction of new headquarters during the summer of 1949.

The multi-purpose building constructed by the lumber company has three floor levels. Since it is located on sloping terrain, the ground floor has openings on three sides. This ground floor contains the company's office, a display room, and living quarters. The first floor is occupied by two stores—plumbing and hardware shops. The second floor contains two apartments. The total floor space within the building is 6000 square feet.

The building is a kind of permanent display unit since many samples of building materials were used in its construction. Each of the 24 doors in it is a unique sample, for example. Various types of flooring, brick, tile, and glass brick were also built into it.

Owner H. W. Scatterday, who is a member of the Mount-
ARCHITECTS & BUILDERS
FIRE "RICHARD" . . .
HIRE "ROLY" TO
"OPEN THE DOOR"
Roly Does More For Less!

Because the sensational new MORRISON Roly-Door - the first and only four-sectional, all-steel overhead residential garage door—has every wanted feature . . .
It opens the door to everybody's satisfaction!
The architect specifies the MORRISON Roly-Door because it conforms to all styles of architecture - because its beautiful simplicity is a welcome addition to new as well as old homes.
The builder chooses the MORRISON Roly-Door because it costs less to install . . . because it's individually packaged.
And the home owner is more than satisfied because the MORRISON Roly-Door costs less to own — and is built for a lifetime.

But that's not all . . . because no other overhead garage door has ALL THESE FEATURES:
- Four-Sectional
- Costs Less to Own
- Costs Less to Ship
- Costs Less to Store
- Costs Less to Install
- Low Headroom Bracket
- Welded at Factory
- Trouble-Free (Patented Pendulum Hinging)
- Built to Last

Write for Bulletin D50-1-A
MORRISON STEEL PRODUCTS, INC.
ROLY-DOOR DIVISION
649 AMHERST ST. BUFFALO 7, N.Y.
MAY 1950

THE CANVAS AWNING INSTITUTE, INC.
AND NATIONAL COTTON COUNCIL
"There is No Substitute for Canvas Awnings"
Contractors
Make Profits
With Shortcuts on
SHOPMASTER
POWER TOOLS

SHOPMASTER 10" Tilting Arbor Saw

This compact floor model saw is built to give long dependable service and speed work. It is easily transportable and can be moved right to the job. Large table and sealed-for-life ball bearings, plus rip fence, miter gauge, saw guard and base, all complete, less motor. 197.50 (Zone 2) only.

SHOPMASTER 6" Ball Bearing Jointer

Another SHOPMASTER on-the-job tool that speeds work and saves you money. Advanced design of cutting head makes knife setting sure and accurate. Sealed ball bearings for long life. Fence locks in center to prevent twist. 171.50 (Zone 2) only.

Write for complete catalog and price list.

SHOPMASTER, INC.
1213 Third St. So.
Minneapolis 15, Minn.

HOME BUYERS LIKE THE KITCHEN-AIRE EXHAUST FAN BECAUSE IT'S DIFFERENT

(Continued from page 210)

tian States Lumber Dealers Association, established his business in Lakewood three years ago in a small shed that served as a warehouse, office, and display room. Formerly, Scatterday was a sawmill operator, an occupation that prepared him for his successful venture as a lumber dealer.

This lumber yard functions as a family affair since Mrs. Scatterday serves as office manager. The Scatterdays' son, Harold, is the company's home planner.

The yard now operates two trucks and employs two men. Roy Barlow is the yard foreman. Further expansion plans are now being developed. These include a new lumber shed and a warehouse on the site of the present office.

The building was constructed by the Stonebeck Construction Company, also of Lakewood, Colorado.
NEW welding technique builds STRONGER, more SILENT HOLLOW STEEL DOORS

THE BEST FOR LESS!

when you install a

Bilco

TRADE MARK

Copper-Steel CELLADOOR

Modern design, finest materials, top craftsmanship make the Celladoor vastly superior to ordinary, old-fashioned wooden basement doors. There's simply no finer door made . . . at any price!

SAVES YOU TIME LABOR, MONEY!

You can install the Celladoor in as little as ten minutes . . . at pleased builders everywhere can testify. And there's nothing to go wrong. No breakdowns, repairs, or maintenance for your customers.

SATISFIES YOUR CUSTOMERS KEEPS THEM SATISFIED

The Celladoor opens the way to new living pleasure! And it keeps giving pleasure for a lifetime. It's super-safe, fool-proof, weather-proof, fire-proof, and stutters every home. Bilco performance means happy customers . . . better business for you.

THE BILCO CO., 165 Hallock Ave., New Haven, Conn.

HOLLOW STEEL DOORS

* MORE RIGID  * ALWAYS PLUMB
* MORE SILENT  * ALWAYS SQUARE
* MORE EASILY HUNG  * ALWAYS ACCURATE

Selected for the nation's SIX largest projects.

WRITE FOR DATA

UNITED STEEL FABRICATORS, INC.

WOOSTER, OHIO

MAY 1950
Pneumatic Nailer Used Effectively in California

A portable, pneumatic nailing tool is being used very effectively by a North Hollywood contractor, Winchell Brothers, according to L. A. Winchell, head of the firm. Called the Azor Nailer, the tool is manufactured by the Azor Products Co., Los Angeles. Distribution in the area is by

the Atwood Machinery Co., Los Angeles.

The Winchell firm, in addition to a general contracting business, handles carpentry subcontracts on large single-family or multiple housing projects, and uses power tools extensively.

Use of the pneumatic nailer was begun about six months ago. Winchell said that about 500,000 feet of flooring has been applied with two of the tools at about one-third of normal nailing cost, and that the tools paid for themselves on one big apartment project.

The tool operates by compressed air, requiring 12 cubic feet of air at 90 pounds of pressure. Builders using only one nailer can utilize a 17 cubic foot portable compressor. Winchell has a 40 cubic foot compressor which, besides the two nailing tools, operates spray guns, pneumatic hammers and spades.

The nailer weighs about 30 pounds when loaded with nails. At the bottom there is a stirrup into which the operator slips his right foot; and after driving a nail he lifts the machine with his foot to the next nailing position. A trigger starts the driving mechanism.

The hopper is loaded by throwing two or three handfuls of nails in at random, the nails automatically reaching the proper position. Capacity is about 600 8p nails. The tool is used mainly for nailing subfloors, but can be used for any flat work or on roofs where a man can safely stand.

New National Homes Plant

Negotiations were recently completed for leasing a former Army reconsignment depot at Horseheads, N.Y., to National Homes Corp., Lafayette, Ind. The building, owned by Welser Industries, Inc., has 175,000 square feet of floor and shipping space. National Homes expects to begin operations around April 1.
You can furnish "Over-the-Top"™ Door Equipment for practically any size or type of door... mill made or carpenter built. Doors can be architect-designed to harmonize... a real advantage for the homes with attached garages. On remodeling jobs old swinging type doors can easily be converted at modest cost.

Frantz, the leading manufacturer of one-piece "Over-the-Top"™ Door Equipment now offers a sectional-type door with new design advantages. Frantz experience has produced a door 14 ways better... one that can be installed more quickly and easily. Available in two popular sizes: 8' wide x 7' high, and 9' wide x 7' high.

Frantz, Guaranteed Builders Hardware
FRANTZ MANUFACTURING CO., STERLING, ILLINOIS
MAY 1950
**How to Taper Lumber on a Saw Table**

**HOW TO DO IT**

This job can be done quickly and easily by using a long tapered wood wedge. Nail the wedge on one side of lumber using thin brads. Adjust the saw table fence, and the lumber with the wedge is fed forward in the usual manner with the wedge riding against the fence.—Herbert E. Fey, New Braunfels, Texas.

**How to Make Fence for Band Saw**

When boards need to be ripped and only a band saw is available, the above method can be used. Secure a straight piece of hardwood and fasten in place with two C-clamps. This serves as a temporary fence and strips of various widths can be cut quickly by merely moving the hardwood piece in or out to the proper distance from saw.—Herbert E. Fey, New Braunfels, Texas.

**NEW BEVIL ALL PURPOSE SET**

**NOW AVAILABLE**—the tools you need for insulation board jobs. Sharp, strong, specially ground blades cut through toughest insulation boards leaving clean, smooth edges. Three tools— five blades — attachments. All for...

**KIMBALL MANUFACTURING COMPANY, INC.**

1629 SYCAMORE ROYAL OAK, MICH.

**Need a Chimney?**

**VAN-PACKER PACKAGED CHIMNEY**

Meets FHA requirements

- **SAVE TIME**
  Install in 3 man hours or less.

- **AVOID JOB DELAY**
  Immediate delivery to job of complete chimney.

BUILDERS

- **SAVE MONEY**
  Costs up to 50% less than brick.

- **SAVE SPACE**
  Hangs from ceiling or below joists. Use space underneath.

VAN-PACKER CORP.

136 S. Clark St., Chicago 3, Ill.

**May Designated 'National Water Systems Month'**

More than two tons of printed matter will be sent to electric water system dealers to help them capture sales during and after National Waters Systems Month in May, according to the National Association of Domestic and Farm Pump Manufacturers.

Display streamers, envelope stuffers, merchandising booklets and direct mail sales aids were sent prior to observation of the week. The campaign is especially directed to the sale of new water systems for the 600,000 farms electrified in 1949, and to promote pump and tank sales for the farms which already had electrical service.

Association officials said that economic conditions are not helping water system dealers again this year, since farm income, although expected to be down by 11 per cent, will still be more than two and one-half times the 1939-40 level. All-time high for farm income was in 1949 with farmers taking in $35 billion. Farm income is expected to exceed $20 billion in 1950.

Slogan for National Water Systems month will be “Profit Grows When Water Flows.” Keynote of the dealer sales aids will be “Running Water—Heart of Today’s Living.”
Two Saws in One!

PORTER-CABLE Speedmatic
Portable Saw and Radial Arm Combination—complete, only $313

- Saves the cost of two separate saws
- For all maintenance and construction work
- Portable saw attaches to arm in a moment
- Makes every kind of cut with positive accuracy
- Quick, easy adjustments for bevels and depths
- America's finest precision power saw

Speedmatic Portable Saw—A powerful high-speed saw, beautifully balanced for easier handling, faster sawing. Light, compact, makes accurate cuts in any position. Cuts job time way down, eliminates fatigue. Four sizes for cuts 2 1/2" to 4 1/4" depth.

Model K7S (2 1/2" Cut) $123.

Speedmatic Radial Arm—Above portable saw attaches quickly and firmly to arm. Retractable arm has long smooth stroke. 23" crosscut capacity, swings 45° right or left. Includes oak table and fence, rugged steel base with legs. Four sizes for above saws.

Model for K75, Complete—$190.

See the Speedmatic at leading Mill Supply, Hardware or Lumber dealers. Write for complete catalog and name of dealer nearest you.

PORTER-CABLE MACHINE CO.
235 N. Salina St., Syracuse, N.Y.

These are the Western Pines

Idaho White Pine
Ponderosa Pine, Sugar Pine

Larch, Douglas Fir, White Fir, Engelmann Spruce,
Incense Cedar, Red Cedar,
Lodgepole Pine.

For more information about Engelmann Spruce, send for free illustrated Facts Folder and Grade Use Guide. Address WESTERN PINE ASSOCIATION, Yeon Building - Portland 4, Oregon

This fine soft wood is one of the Associated Woods produced by member mills of the Western Pine Association. It is fine-textured, and although light in weight, is very strong for its weight. Carpenters like it because it is easy to work, nails without splitting and holds nails and glue firmly.

Engelmann Spruce is suitable for many building uses such as sheathing, subflooring, framing, ceiling and siding. It works up satisfactorily for interior finishing, mill work, industrial boxes and crates. The tight knotted boards are often used for knotty paneling particularly where a wood of light color and rather inconspicuous knots is desired.
Conveyor Made by Roofer Proves Worth Project

A conveyor made by a local roofer has proved to be a valuable piece of mechanical equipment for the H. F. Nunn Co., West Los Angeles, Calif., roofing contractors. The machine, which will raise 14½ tons of material an hour to a three-story height, is being used on a large 608 project.

The conveyor is made of a steel-tubing ladder which is fastened to the roof with a bracket. A 7 HP motor is attached to the bottom. A cable runs from a spool attached to the motor up the underside of the ladder to a pulley on the topside. The pulley is attached to a carrier which is built to travel up and down the ladder rails on wheels. A clutch engages the cable and at the same time releases the safety brakes. When the load is dumped at the top, the carrier goes to the bottom by gravity. By attaching a hopper, it can be converted to a gravel loader.

Readybuilt Releases Data on Nailing Hardwood Floors

In many cases, insufficient attention is given to proper nailing of tongue and groove hardwood floorings; and with improper nailing there is every chance that some tongue splitting will result, according to a statement by the Maple Flooring Manufacturers Association. When this happens, the statement said, squeaks or creaks are likely to develop, because flooring strips fail to hold down and together as tightly as they should.

"The position of the nail point and the angle of the nail are all important. For effective results, nails should be driven at an angle of 35 to 55 degrees, and the first nail or two driven into the strip of flooring should be "cornered" toward the preceding strip to which it joins. This procedure makes tight end joints. Use heavy flooring hammer and set nails, breaking joints as the flooring is laid.

"The spiral type of floor screw is gaining in popularity in many sections of the country, especially when used in laying Northern Hard Maple flooring. It drives like any other type of nail, but turns and holds like screws. Experienced floor-layers using the spiral floor screw report little or no tongue splitting, bending or waste.

"The recommended nail specifications follow:

"For ¾-inch flooring.—Use five-penny cut steels flooring nails or ½ No. 1 spiral floor screws, driven nine inches apart.

"For 5⅝-inch flooring.—Use 6, not over 7-penny cut steels flooring nails or 2⅜ and 2½ No. 5 spiral floor screws, driven not over 10½ inches apart.

"For 8½-inch flooring.—Use not over 7-penny cut steels flooring nails or 2½ and 2¾ No. 5 spiral floor screws, driven 12 or 16 inches apart.

"Wire casing nails may be used where cut steel or spiral floor screws are not obtainable. Use only non-splitting type wire nails, and nail to each support bearing."

Saies Representative Wanted

by established manufacturer of finest quality entry and interior bore-in door locks in low price range. Line has immediate recognition and acceptance. Want Commission Representative with building material or hardware experience. Desirable to have contacts with wholesale jobber and contract dealer trade. Several desirable territories available. State full particulars first letter. Confidential. Write to WESTWOOD MANUFACTURING CO., 1420 So. Evergreen Ave., Los Angeles 23, California.

Increase Production 100% with KEN Corner LEVEL

To 1½ minutes you can determine the earning savings in time and effort by installing the new Ken Corner Level, and have the job done in all building. The NEW KEN CORNER LEVEL is the greatest improvement since the invention of the level. It will double present production during any 1½ minute period of working time. Multiply that saving by the number of hours, days, weeks, months at a working day rate and you will know what kind of production increase you can expect with KEN CORNER LEVEL. The KEN CORNER LEVEL allows you to work without guesswork. The bubble is adjustable for planning a better, flatter, more accurate surface. 200 per cent added working time with the KEN CORNER LEVEL is the mechanical working on the same speed with increased effort and little or no additional effort. The KEN CORNER LEVELS are being successfully used by framers, carpenters, everywhere. Drop us a card for information.

SINGER-KENNEDY CORP.
Dept. L—21 E. Van Buren St., Chicago 5, II.
The Practical Answer to

Low Cost AREA WALLS

BONDERIZED AFTER FORMING is an important new feature added to all Lawson Bathroom Cabinets! The bonderizing process is applied AFTER all shearing, drilling and forming is completed. It provides 100% BONDERIZED protection against rust and corrosion... assures longer life for all Lawson Cabinets!

AND... Lawson Cabinets, BONDERIZED AFTER FORMING, cost no more!

ARCHITECTS SPECIFY

LAWSON BATHROOM CABINETS... BECAUSE they have:

one-piece drawn steel body, stainless steel hinge and shelf supports, first-quality mirror... and now, they are BONDERIZED AFTER FORMING!

Write today for catalog of bathroom cabinets and chrome accessories.

WORLD'S LARGEST BUILDERS OF BATHROOM CABINETS

THE F. H. LAWSON CO.

134 YEARS

CINCINNATI 4, O.

USF WINDOW WELLS

and Guards

Sturdy, heavily bright galvanized, genuine USS Copper Steel assures lifetime service. Fast to install, low in initial cost and completely satisfactory on every application. Full range of sizes. Heavy-duty, expanded metal guard grilles will carry heavy weight—admit plenty of light. At your dealer or write...
### Long Handle Cementers’ Trowels

Highest grade spring steel blade, tempered, ground and polished. Steel mounting; first quality ash handle 7 feet long, adjustable to any position; bolt and nut.

<table>
<thead>
<tr>
<th>Size</th>
<th>Price</th>
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<tr>
<td>18 x 5</td>
<td>$ 8.00</td>
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<td>24 x 5</td>
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### Leveling Instruments

These levels are simple, accurate, durable and complete with 9 foot rod, target, plumb bob, carrying case and directions.

- **No. 2 Farm Level**: $34.00
- **No. 4 Contractor’s Level**: $49.50
- **No. 5 Convertible Level, without Compass**: $71.00
- **No. 5C Convertible Level, with Compass**: $92.00

Long Handle Trowels and Leveling Instruments shipped Express, transportation charges collect. Immediate delivery. Send money order or check with your order.

### House Designed as Home Show Feature

**DESIGNED** by John I. Mattson, Seattle architect, especially for the 1950 Seattle Home Show and Household Fair this house was built inside the Field Armory for the Seattle Master Builders Association by Lars Boyd and Harry Mahrenholz of Seattle. It was razed after the show was over.

In planning the house no thought was given to a design which could be built at any definite cost. Emphasis was on showing as many types of materials and equipment as possible while still retaining good design. A long lane of flowers and pools led from the auditorium’s entrance to the front of the house.

An interesting feature is a small patio and garden at the rear, enclosed by a board fence and full of potted plants, offering privacy on a small city lot. All types of tile were used throughout the house. Philippine mahogany paneling combined with wall paper and copper-foiled-papered ceiling provided a living room with unusual appeal.
Local Colorcretors Can Earn High Incomes

COLORCRETE is today's biggest business opportunity in the building field. High returns from a low investment. Easy, fascinating work. Large waiting market because Colorcrete is applied over all kinds of old and new masonry surfaces—exterior and interior.

Pneumatic pressure sprays plastic-like Colorcrete to give enduring beauty and water-resistant values. Range of 50 gleaming colors; many textures. Easy to wash. Smartly modern. Write or wire today for Opportunity Portfolio, which gives complete story.

COLORCRETE INDUSTRIES, INC.
503 Ottawa Ave., Holland, Mich.

Second Edition

HOME BUILDERS MANUAL
For Contractors

This collection of material in its three-ring binder is designed as a selling kit. Any section may be removed and shown or given to the prospect. In the latter case a new section, punched for insertion, can be obtained. The user can add his own material, such as the local building code, to make it as complete as desired. The Manual contains:

- General advice for the user
- American Builder's Blueprint Plans book
- Portfolio of 14 8½ x 11 forms for estimating, job records and contract agreements
- Set of open Specifications for a house
- Complete set of Material List sheets
- Contractor's Bid and Budget Estimate forms
- Forms with carbon for "Extrav
- Small Job Estimator forms for repair jobs
- Home Owner's Property Records and Building Contract 1948, 2nd. 9½ x 11½, Fabrikoid binder, $5.00
- Complete lists of House Plan, Carpentry and Estimating books.

Book Department

AMERICAN BUILDER
SCHUMACK-DOOGMAN PUBLISHING CORPORATION
30 Church Street New York 7, N. Y.

MAY 1950
HEAVY-DUTY
HALF BAGGER with
Power Loader and Tank

Promoted policies which halted work, brought about crippling stoppages of production, and resulted in laying men off and starving their families. There is a very easily identified line between opposing labor and laboring men on the one hand, and opposing a type of leadership to which some of them are subjected.

I might say that I was especially surprised to hear your attitude since all of the organized labor groups in the country, relationship between American Builder and the United Brotherhood of Carpenters and Joiners is and always has been most cordial. Here in Chicago, where we are published, a number of us enjoy the personal friendship of many agents and top executives of the Brotherhood. I have never heard one of them express the slightest objection to any editorial or editorial policy of ours. I can assure you that we know them well enough, and that they know us well enough so that if there was anything which in their judgment was inimical to the welfare of the Brotherhood or of organized labor they certainly would tell us about it in a hurry.

We would indeed be very

(Continued on page 224)
ALWAYS RAIN-TIGHT HERE—

Head of top sash protects against rain even when window is open!

Well aware that dropping the top sash would allow rain to enter and ruin floors, furnishings and decoration, Gate City designed its awning windows with fixed hinges throughout.

This feature is one of the most important points to look for in the awning windows you specify or install. It symbolizes the careful attention Gate City gives to all requirements of service.

Add to this weather tightness the other Gate City advantages of easy weatherstripping, elimination of condensation, economy of maintenance, factory-applied toxic treatment—all proved by more than 10 years of satisfactory service on countless installations, and you have many important reasons why these beautiful windows are preferred by leading architects and builders all over the country.

For complete information about Gate City Awning Windows for homes and institutions, see our catalog in Sweet's, or write Gate City Sash & Door Co., Dept. AB-5, Fort Lauderdale, Florida.

Gate City

WOOD AWNING WINDOWS
Toxic-treated against rot—fungus—termites

SAYS MR. WETWALL: Certain—ly can make ceilings full. And people get badly hurt that way!

SAYS MR. DRYWALL: Sells Mexican— I keep people happy, dry and safe—no falling ceilings, no cracked or mildewed walls.

why build WET...
when DRY WALL CONSTRUCTION is safer, faster, less expensive?

If you have experienced the roar and damage of a falling ceiling—there is little we can tell you about Dry Wall Construction. Mr. Carl G. Lann, Technical Director of the Nash says, “Before the war, everything was lath and plaster; now it is a rare thing in residential construction. Dry wall has proved satisfactory not only because it is much more economical, but also because it produces a true, straight wall... and eliminates the introduction of many gallons of moisture into the house.”

For 32 years Homasote has been used for Dry Wall Construction—in millions of dollars of private homes.

Dry Wall Construction—with Homasote Big Sheets—offers many major advantages... The average wall is covered with a single sheet; bat ten strips and unsightly wall joints are eliminated. You get walls that are permanently crackproof, ideal for paper or paint, lending themselves to modern decorating effects, modern moldings and trim... Let us send you performance data and illustrated literature on Homasote and allied products.

Weatherproof HOMASOTE... in Big Sheets up to 9' x 14'
Oldest and strongest insulating and building board on the market

SEND FOR ILLUSTRATED LITERATURE

HOMASOTE COMPANY • DEPT. 40, Trenton 3, New Jersey

Send me literature as checked:
Standard Homasote (Big Sheets) ( )
Reinforced Homasote (Tiles and Panels) ( )
Wood-textured Homasote (Panels) ( )
Slate Asbestos Board ( )
The Nova Roller Door ( )
The Nova-Single and the Nova-Speed ( )
Shingling Clip ( )

Name.
Address.
City & Zone State
foolish if we took an anti-labor attitude. There is an intelligent reason for understanding the problems of labor and of the sound, constructive unions such as your Brotherhood. That reason is that there will be no houses built in this country without skilled labor and no good construction done without the kind of screening and supervision exercised by your Brotherhood and similar unions. We pride ourselves on having enough intelligence to understand that. But even if that were not enough, there is a selfish reason. It is that a large number of our subscribers, both large and small builders, have been and still are members of the United Brotherhood of Carpenters and Joiners. It would be only human, even if we did disagree with it, which I assure you we do not, to refrain from attacking them, since their good will is worth much to us.

The action your Local Union took with regard to renewing subscriptions to the American Builder is of such concern to me that if on rereading the editorials I mentioned, you and the other members of the Union still feel that they are anti-labor, I wish you would take a few minutes to tell me where you can construe them to be so. If you would do that I shall consider it a favor and treat it accordingly.

"Curse of Monopoly"


It is my belief that you used very good logic in preparing and presenting this material. You have hit upon many points which have previously been ignored by many political leaders.

I believe that men such as you do a great deal for the country by publishing the truth as you see it on such a controversial subject.

R. J. Waddington, Vice President
American Roof Truss Company
Chicago, Ill.

Publisher's Page

Sir: I am very interested in your "Publisher's Page" of the American Builder.

What this country needs is more men of the caliber and courage that Mr. Dunn displays on his page. This

(Continued on page 226)
A COMPLETE LINE of Budget-Priced GUSSPRAY QUALITY TUBULAR Locks and Latches—REVERSIBLE— for right and left-hand doors opening IN or OUT...

FOR EXTERIOR DOORS No. 320 series
Operates by knob from either side and by key from outside when locked by inside lever.

BATH - BEDROOM SET No. 379
Privacy locking button, inside—with emergency entrance feature, outside.

INSIDE LATCH SET No. 345
Operates by knobs from either inside or outside.

STANDARD NIGHT LATCH FOR DOORS OPENING IN No. 646
Functions by key from outside and thumb knob from inside. Inside slide lever holds bolt retracted.

STANDARD NIGHT LATCH FOR DOORS OPENING OUT No. 646½
Operates same as No. 646 except that the Auxiliary Latch protection.

DEAD LOCK No. 630
Operates by key from outside and turn knob inside.

* Distinctive finishes on enduring brass or bronze.
* Cast brass cylinder — 5-pin tumbler protection. May be MASTERKEYED if desired.
* Choice of attractive metal or glass knobs to match inside trim.

P. & F. Corbin
DIVISION
THE AMERICAN HARDWARE CORPORATION
New Britain, Connecticut

MAY 1950
SEAL-ALL CLIPS

A simple sturdy clip designed to interlock shingle sections and prevent raising of asphalt shingle tabs. The perfect clip for long panels, in 1 strips and individuals laidup Dutch Lap method.

- Made of solid copper wire—pliable yet strong enough to anchor single sections.
- Cannot rust out.
- Hammer is only tool necessary.
- Easy to handle.
- Beauty of roof unmarred.
- Perfect on repair jobs to correct leaky, unsightly roofs.
- Millions in use since 1935.

BUILDERS AND DEALERS: For complete information and free samples, write today.

SEAL-ALL CLIP COMPANY

BOX 2026,
FLINT, L. MICH.

For Architect Specification and Builder Installation...

ALL WALL-INSERT and WALL-SURFACE ATTACHABLE HEETAIRES

from 1000 to 6000 Watts are available with...

AUTOMATIC THERMOSTATIC HEAT CONTROLS

All HEETAIRES can produce and maintain temperatures between 55° and 85°F (with only a 2°F differential at all times). This insures correct, comfortable comfort—uninterruptedly, quietly, wherever wanted.

"I" and "TA" Model HEETAIRES are equipped for automatic heat control.

"I" with the thermostat built-in. "TA" with built-in relay for operation with A-163 wall thermostat. These thermostats have a range of from 55° to 85°F. The "TA" series is equipped exactly like HEETAIRE without thermostat. All wiring has been built in at the factory.

Several "TA" Series heaters may be operated by one wall thermostat since each Series "TA" HEETAIRE has a self-contained relay for control by a conventional thermostat (with a range from 55° to 85°F) if desired.

The "TA" series are easily installed by standard wiring methods on an advantage made possible by a special relay built into the "TA" Model HEETAIRE.

"A Guide to Quick Heating"

FREE!

Write for Bulletin M-1090.

All the data to help you choose the right HEETAIRE for every purpose.

MARKEL

LA SALLE

ELECTRIC PRODUCTS, INC.
LIGHTING PRODUCTS, INC.

151 SENeca ST. • BUFFALO 3, N. Y.

COMING SOON!

WATCH FOR BIG KWIKSET ANNOUNCEMENT!

KWIKSET

LOCKSETS

Twist Locks, Inc.
Arlington, Calif.
All builders should know these facts about pressure-treated lumber

**FIRST**

PROTECTION—Treating of lumber preserves it—just as alloys preserve metals. The purpose is to protect lumber against costly rot and termite damage.

**SECOND**

PRESSURE TREATMENT

vs. Surface Application—Authorities say that pressure treatment provides the only safe, lasting protection to lumber.

**THIRD**

OTHER QUALITIES TO LOOK FOR—For greatest usefulness, preservatives should be clean, odorless, paintable, non-leaching and non-corrosive.

For complete information about WOLMANIZED Pressure-Treated Lumber, write for free booklet.  

**FOURTH**

WOLMANIZED Pressure-Treated Lumber combines all these requirements—lasts 6 to 8 times longer than untreated wood, because it's treated under 150 lbs. pressure per square inch. Protection is deep in the wood fibers. It's clean, odorless, paintable, non-leaching, non-corrosive. Wollmanized Pressure-Treated Lumber has been proved in use for over 25 years. It will prove its value to your customers and boost your good reputation as a builder of sound, durable, trouble-free structures.

AMERICAN LUMBER & TREATING COMPANY

General Offices: 1650 McCormick Bldg., Chicago 4, Illinois
Branch Offices: Baltimore, Boston, Jacksonville, Fla., Little Rock, Ark., Los Angeles, New York, Portland, Ore., San Francisco

MAY 1950
"$86\text{.}28" \text{ per house} \\
(13 \text{ sq. asbestos shingles on gypsum}) \\
$75\text{.}63 \text{ per house} \\
(13 \text{ sq. wood shingles on gypsum}) \\
—that's what ES-NAILS saved me...good money in the bank!"

says a prominent New Jersey builder.

In full, he stated: "I use ES-nails to attach both wood and asbestos shingles directly to gypsum sheathing—and they really do a job.

"ES-nails give better results than other types of construction...we are highly pleased with their locking ability—and use them exclusively."

Other practical reasons for using ES-nails include: their ease of application—no special tools are required, use a regular shingling hatchet or carpenter's hammer...they are self-locking, attaching wood or asbestos shingles directly to gypsum or insulation sheathing...and they can be driven at any convenient point—no need to locate studs.

For more information about the value of ES-nail construction—and the savings it will mean to you, call your supplier, or write: Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, New Jersey.

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**Letters**

(Continued from page 226)

**High Costs in Australia**

Sir: This is to request you, if within your power, as a matter of urgency, to obtain and forward to me by airmail the general details, method of working, etc., and at a later date a summary of the legislation of the FHA scheme.

In Australia we are finding that owing to the high cost of building construction, would-be home owners are finding it difficult to finance their requirements and the Lending Authorities are only prepared to lend approximately 75 per cent of the money required. Very little money is available for second mortgage owing to the pegging of interest rates.

Some (in Australia) have been advocating a government backing of risk money similar to the FHA scheme and with a view to examining it in all its implications before submitting any proposals to the Commonwealth Government, I am seeking your aid.

E. S. Elliott, Secretary
The Master Builders' Assn.,
Melbourne, Australia

**Charter Subscribers**

Sir: I am proud of the fact that I am a Charter subscriber of American Carpenter and Builder, and have nearly all the original numbers—including a bound copy of the first years.

W. H. Butler, Builder
Buffalo, Wyoming

Charter memberships to American Carpenter & Builder, forerunner of a publication which merged with American Builder, date back to 1905.

**American Builder, 1872**

Sir: Am passing on to you a page from "Appleton's Journal" of January 27, 1872, which may probably interest you. Have been reading the American Builder since 1885.

James M. Holm, Builder
Upper Darby, Pa.

In the January 27, 1872 issue of "Appleton's Journal" submitted by Mr. Holm, the American Builder had the following 1-inch advertisement on page 112:

"The American Builder: The only paper in the country devoted especially to the Building Arts. Terms, $3.00 a year, in advance. In consequence of the Great Fire, no more Specimen Copies can be sent free."
Increase fire protection by installing metal clad or Kalamine doors with Coburn Fire Door Hardware. Dependable, smooth-operating Coburn Fire Door Hardware will save valuable goods and protect personnel... and your fire insurance costs will be reduced.

Coburn Fire Door Hardware is made to specifications of The National Board of Fire Underwriters and, where necessary, bears the U.L.I. label. Special sets are available for single and double incline or level slide doors; vertically operated doors. All are equipped with automatic self-closing devices. Write for Catalog #210 showing the full line of Coburn Fire Door Hardware; charts showing required headroom; wall space and other vital information.

Engineering help is available without obligation.

Other Coburn Products include #500 Swing-Over Garage Door Hardware Sets, overhead trolleys and conveying systems for carrying loads up to 3,000 lbs.

COBURN PRODUCTS DEPARTMENT
THE COLORADO FUEL AND IRON CORP.
WICKWIRE SPENCER STEEL DIVISION

Any Comet owner has Profit on his side!—at least in the cutting end of the business. Always built to make money for their owners, Comets rocket on to greater acceptance as number one radial power saws in the entire field. The recent new model Comets sparkle with exclusive improvements— and sell at a new low price. They make all the cuts necessary, from start to finish, outside and in. Thousands of owners say Comets short-cut to profit. Write direct, or see your nearest Comet dealer.
The Milwaukee Combination

SASH BALANCE and WEATHERSTRIP

PERMITS REMOVAL OF SASH WEIGHTS, INSULATION OF MULLIONS.

Slash Labor Costs'

Simple installation allows one man to easily install 50 or more windows in 8 hours. No high-priced skilled labor needed. This means you can get more satisfied customers at lower cost — higher profit!

Tops in Operation!

Smooth, positive action; accurate balance; finger-tip control; plus the perfect seal against draft, dust, moisture. No wood-to-wood contact. Prevents sticking windows and window rattle.

EFFICIENT LOW COST

ATTENTION MILLS AND LUMBER YARDS

IDEAL FOR PRE-FIT WINDOWS

Mail this coupon today!

Milwaukee Strip Service, Inc.
4621-23 W. Lisbon Ave.
Milwaukee 8, Wisconsin

Please rush me folder A-5 and price list of Milwaukee Combination Sash Balance Weatherstrip.

Name
Address
City Zone State

More Low-Priced Homes Going Up, Survey Shows

An appreciable increase in the construction of lower-priced homes is currently taking place, according to a report by the committee on trends and economic policies of the United States Savings and Loan League.

Two-thirds of savings association managers surveyed by the committee said that the lower-priced homes account for a "larger proportion" of total building than a year ago.

Other information indicated by the committee's survey of building and housing trends:

1. There is little change in building costs from six months ago. Half the savings association managers polled said no change had occurred, while the remainder disclosed only slight variations up or down.

2. The market has tightened considerably for both high and medium-cost homes, but the lower-cost new home is still in strong demand.

3. Houses for sale are remaining on the market somewhat longer than was the case six months ago. This is particularly true in the high-priced new home category.

In commenting on the results of the survey, Henry A. Bubba, Topeka, Kan., president of the League, said "The buyer's market is back in earnest."

linoleum underlay drive screws

To make your linoleum underlays hold tightly and lay flat permanently, secure them with Hassall linoleum underlay drive screws. They are spiral-threaded and cement-coated for maximum holding power. Heads are flat countersunk type. Size: 13/8" x 3/32 ga. State quantity when writing for prices to:

JOHN HASSALL, INC.
186 Clay Street
Brooklyn 22, N. Y.
Established 1850

SHEPLER RADIÀ ELECTRIC HEATERS and VENTILATING FANS

Here's a Completely New, Improved 8" Automatic Fan for Small Rooms

Model No. 1-8" (Illustrated). Also available in 10" size—Model No. 21

- Quickly installed in ceiling, wall or cabinet
- Designed for bath-rooms, kitchens, powder rooms, etc.
- Low in cost

This new, low cost 8" automatic fan, designed specifically for small rooms of limited wall space, has all standard construction and mounts horizontally or vertically. The powerful, quiet, motor-enclosed fan motor and 8" Tornado propeller assure long, trouble-free operation. Motor blade assembly, attached to the removable grille, and plug-in connection simplify cleaning. The No. 1 model has a rating of over 500 C.F.M. (free air delivery).

This type fan is also available in the standard No. 111 Model with 10" blades, having a rating of 650 C.F.M. (free air delivery). Both models feature double automatic shutters and weather-tight seal to prevent back drafts and drafts.

Approved by Underwriters Laboratories.

Everybody Profits with SHEPLER Preferred Products
- Radiant Electric Wall and Portable Heaters
- 8" and 10" Automatic Wall and Chimney Fans
- Automatic Wall and Ceiling Shutters
- Gas and Electric Fireplaces
- Stationary and adjustable louveres

Write Dept. AB-1 for complete details

SHEPLER Manufacturing Company
1312-14 SHEFFIELD STREET * PITTSBURGH 12, PA.
ATOMIC LAND INVITES YOU...

TO THE 1950 NEW MEXICO HOME BUILDERS EXPOSITION

MANUFACTURERS A NEW FRONTIER AWAITS YOU!

New Mexico is rich, young and ready for you! Your exhibit will reach a brand new market—fastest growing in the country today. Almost as many homes built in Albuquerque alone in 1949 as entire corporate limits of Chicago. It's not too late to reserve your space. If you have not already received a brochure on the show, wire for full information.

Sponsored by:
ALBUQUERQUE HOME BUILDERS ASSN.
1839 Campus Boulevard
Albuquerque, N.M.

"JUST WAIT 'TIL YOU SEE IT!"

Watch for Big Kwikset Announcement COMING SOON!

Look to Kwikset to be first and foremost with top quality residential locks.

MAY 1950

PACKARD MANUFACTURING CORP.
INDIANAPOLIS 2, INDIANA

NEW Capehart SAWS

Converts Your Portable Electric Saw into a PRECISION PORTABLE RADIAL ARM SAW

The new Capehart Saw Gide fills the crying need for a top-quality, portable, precision "on the job" saw guide that does everything you can do with the big, unwieldy, high-priced radial arm saws—plus some things you can't do with them:

Cross-cuts . . . bevel cross-cuts . . . miters . . . bevel miters . . . rips . . . bevel rips . . . dadoes . . . tongue . . . rabbits . . . bevel rabbits . . .

all these operations, and more! the new Capehart performs with speed, precision and ease. ("With proper cutting head—also cuts stone, metal, composition, etc.)

SETS UP IN FIVE MINUTES

GIRES Better WORK

Easier WORK

Safer WORK

AT Lowest COST

PROMPT DELIVERY FOR THESE SAWS:

Model 10 - $40.00; Model 10 1/4 - $40.00; Model 10-3/4 - $40.00; Model 10-7/8 - $40.00; Model 10-9/16 - $40.00; Model 10-11/16 - $40.00

IF YOUR DEALER DOES NOT STOCK • HAVE HIM ORDER FOR YOU TODAY

PACKARD MANUFACTURING CORP.
INDIANAPOLIS 2, INDIANA
The production of Douglas fir lumber for the first quarter of 1950, despite heavy cutting during March, is 17 million feet below the output for the same period last year, according to H. V. Simpson, executive vice president of the West Coast Lumbermen's Association.

"We have not yet recovered from the crippling effects of the 'Paul Bunyan' winter of January and February," Simpson said. "Last year by this time, we had out 2,166,238,000 board feet. We will fall below 1948's record first quarter by 480 million feet.

While some mills are still handicapped by lack of log supply," Simpson said, "the industry as a whole is pretty well back to normal operation." By the end of April most logging camps will have been opened, although late heavy snows have affected log supply in some areas.

The weekly average of West Coast lumber production in March was 205,817,000 board feet, or 126.3 per cent of the 1945-1949 average. Orders averaged 224,489,000 board feet, shipments to 18,105,000 board feet. Weekly averages for February were: production, 161,421,000 (99 per cent of the 1945-1949 average.) Orders were 201,507,000, shipments 189,361,000.

VERSATILE!

For instance, this is typical of 120 varied-size houses we delivered to Camp Hood, Killeen, Texas. Engineered Houses are not canned—they're fitted to your plan or ours. Pre-cut and panelized by mass-production methods for savings...big, small, gables, flat-top—any style!

NEW AZOR
Portable Pneumatic Nailer
Cuts Nailing Costs!

SPEEDY NAILING — Drives 40 to 50 nails a minute consistently!
QUALITY NAILING — Drives nails in straight or at an angle, flush with wood, or below wood surface if wanted, without usual hammer marring.
EASY NAILING — Operator presses trigger, drives nail, steps to next position and repeats operation, standing erect...at ease.

Write for information
AZOR PRODUCTS CO.
687 Santa Fe Ave.
Los Angeles 21, Calif.

For any climate!

105 Pueblo style went to sand-and-sunshine country in White Sands. But if blizzards are your problem, or dripping skies, or quick changes, we'll engineer one or more for you...or adapt your plan. Engineered Houses are flexible...livable...economical! Write, phone or wire for full details!

TEXAS HOUSING COMPANY
9001 DENTON DRIVE
PHONE 04-2401 DALLAS, TEXAS

For any climate!

105 Pueblo style went to sand-and-sunshine country in White Sands. But if blizzards are your problem, or dripping skies, or quick changes, we'll engineer one or more for you...or adapt your plan. Engineered Houses are flexible...livable...economical! Write, phone or wire for full details!

TEXAS HOUSING COMPANY
9001 DENTON DRIVE
PHONE 04-2401 DALLAS, TEXAS
The PARKS PLANING MILL SPECIAL

8 MACHINES IN ONE

The Parks Model R Planing Mill Special is a low priced, multi-purpose, money-saving machine that is ideal for almost every shop. It offers a Cast Iron Double Table Rip and Crosscut, 22-Inch Band Saw, Swing Cut-Off Saw, 12-Inch Jointer, Tenoner, Upright Hollow-Close Mortiser and Borer, Reversible Spindle Shaper, and 18-Inch Sanding Disc.

The PARKS Woodworking Machine Company
Dept. 30-55, 1546 Knowlton St., Cincinnati 23, Ohio

MANUFACTURERS OF QUALITY WOODWORKING MACHINES Since 1887

For Rain Insurance

USE THOROSEAL
and make lifelong friends

Applications of THOROSEAL may be made over exterior surfaces of foundation walls as work progresses.

STANDARD DRY WALL PRODUCTS
BOX X
NEW EAGLE, PENNSYLVANIA

GILSON Mixers......
cost less to own and operate

YOU save money with a Gilson mixer right from the start, for low initial cost – lowest on the market. In years with this best-engineered machine that is packed with quality construction features that mean added years of service and precision mixing. You'll find an extra rugged all-steel frame, oversized engine, heavy duty ball bearings, steel precision flange-tuf cost teeth — everything you'd expect only in a power loading mixer. For these good reasons, and many more, thousands of Gilson mixers are being used today by contractors everywhere — 99 models to meet your needs. Write today for an informative, well-illustrated bulletin and the name of the Gilson distributor in your community.

GILSON BROTHERS CO. FEDERAL WISCONSIN
Manufacturers of Contractors Equipment Since 1871

MAY 1930
The "OVERHEAD DOOR" trade mark
WITH THE MIRACLE WEDGE

Strong Doors need strong hardware

- Long experience has taught us the necessity of good hardware. Every "OVERHEAD DOOR" built for commercial or industrial installation is equipped with hardware to match its other quality features... heavy-duty 2" or 3" tracks, multiple hinges across each section, door sections steel-reinforced as required. When specifying doors for factories, warehouses, public garages, farm buildings, terminals and similar buildings, remember — QUALITY cuts COSTS!

Any "OVERHEAD DOOR" may be manually or electrically operated.

TRACKS AND HARDWARE of Salt Spray Steel

Nation-Wide Sales—Installation—Service

OVERHEAD DOOR CORPORATION • Hartford City, Indiana

MANUFACTURING DIVISIONS

- Oxnard, California
- Detroit, Michigan
- Hildes, New Jersey
- Portland, Oregon
- Lewistown, Pennsylvania
- Dallas, Texas
You will be on the right side and the bright side in selecting National Screen Hardware. It is trouble-free, dependable and easily installed. There is none better.

Your National Dealer will be glad to assist you in selecting other items from the National line. Ask to see the National Wall Chart.